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ABSTRACT

A study investigated the occupational, educational, personal, and social benefits of obtaining the General Educational Development (GED) credential for Wisconsin GED recipients. It examined differences in the benefits experienced and factors that affected the nature and extent of these benefits. A questionnaire was mailed to 1,028 individuals who received the GED credential between July and December 1989, with an adjusted response rate of 50.2 percent. Factor analysis of responses yielded 11 benefit factors: occupational advancement, further education, vocational training, GED participation of others, life satisfaction, enhanced parental role, better relationships with others, financial security, improved self-image, higher aspirations, and greater community involvement. Respondent age was the demographic variable related to the largest number of benefits. In-depth telephone interviews were conducted with 49 survey respondents. Results suggested that graduates' adult roles and responsibilities had an impact on the benefits they experienced from obtaining the GED credential. The nature of graduates' goals affected the outcomes they experienced. Recommendations were made for high school completion program alternatives, provision of support services, collaboration with educational providers, and ongoing program evaluation and follow-up. (Appendixes include a list of 17 references, bibliography of 32 GED studies, and survey instruments.) (YLB)

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ED340914

FOLLOW-UP STUDY OF 1989 GED RECIPIENTS IN WISCONSIN

Final Report

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"It takes a load off your shoulders when you don't have to worry about finishing school"

SUMMARY

The purpose of this study was to answer the following questions: (1) what are the occupational, educational, personal, and social benefits of obtaining the GED credential for Wisconsin GED recipients? (2) How do Wisconsin GED recipients vary in the benefits they experience? (3) What are the factors that affect the nature and extent of these benefits?

Two methods of data collection were utilized, a mailed questionnaire and telephone interviews. The questionnaire was mailed to 1028 individuals who received the GED credential between July 1989 and December 1989, yielding an adjusted response rate of 50.2% Factor analysis of questionnaire responses yielded eleven benefit factors: Occupational Advancement, Further Education, Vocational Training, GED Participation of Others, Life Satisfaction, Enhanced Parental Role, Better Relationships with Others, Financial Security, Improved Self-Image, Higher Aspirations, and Greater Community Involvement. Respondents reported the greatest gains in Life Satisfaction; the fewest positive changes were reported for Greater Community Involvement. Respondent age was the demographic variable with a relationship to the largest number of benefits. Preparation for testing also had a relationship to benefits.

Indepth telephone interviews were conducted with 49 individuals who responded to the survey. These individuals were selected for the interviews based on key demographic characteristics as well as reported benefits. Results of these interviews suggested that graduates' adult roles and responsibilities have an impact on the benefits they experience from obtaining the GED credential. In addition, the nature of graduates' goals affects the outcomes they experience.

Based on the results of the study, recommendations were made for (1) high school completion program alternatives; (2) provision of support services; (3) collaboration with educational providers; and (4) ongoing program evaluation and follow-up.

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Chapter 1
STUDY PURPOSE AND METHODOLOGY

Purpose

The General Educational Development (GED) credentialing program has been the object of much recent concern in Wisconsin. In an effort to upgrade the competencies of GED recipients, new policies were implemented in 1988 that include mandatory career counseling prior to GED test examination, and the highest passing score requirements in the nation. These policies were established to ensure that GED recipients have acquired the basic skills they need for employment and further education, two potential goals of GED examinees. Prior to this study, there was little documentation of the extent to which Wisconsin GED recipients are actually achieving these goals. In addition, little was known regarding other outcomes of obtaining the GED credential. Employment and further education represent only two of many possible goals of GED examinees (Baldwin, 1990). Clarifying the potentially varied outcomes of GED completion in Wisconsin is essential to determine the effectiveness of the GED credentialling program. We also have limited understanding of the factors that affect GED recipients' attainment of the goals they wish to achieve. Are academic skills the critical element for success? What other personal, social and situational factors influence the impact of GED completion? Such information is crucial to enable educators and policy makers to design appropriate educational programs and policies.

The purpose of this study was to answer the following questions:

1. What are the occupational, educational, personal and social benefits of obtaining the GED credential for Wisconsin GED recipients?
2. How do Wisconsin GED recipients vary in the benefits that they experience?
3. What are the personal, social and situational factors that affect the nature and extent of these benefits?

Previous Research

As background for the project, a review of previous follow-up studies of GED recipients was conducted (see the Bibliography in Appendix A for a list of studies reviewed). This review yielded somewhat mixed findings. Only the most relevant studies will be noted here. In Wisconsin, the most recent and extensive information on GED recipients was gathered in a series of studies conducted by the University of Wisconsin-Milwaukee Employment and Training Institute (Pawasarat and Quinn, 1986). The results of these studies suggested that GED recipients are less successful than high school graduates in postsecondary education programs. Unfortunately, the utility of the studies was limited by the utilization of a nonrepresentative group of GED recipients (those who enrolled full-time in postsecondary study), assessment of only one potential benefit (postsecondary educational achievement as indicated by grades and retention), and no analysis of factors affecting the success of GED holders (see Whitney, 1986, for additional comments). Additional studies by Pawasarat and Quinn (1986) focused on the use of the GED credential by employers. Their findings indicated that most Wisconsin employers consider the GED credential to be equivalent to a high school diploma when making hiring decisions; however, these results offer little information about job-related benefits actually experienced by Wisconsin GED holders. In research from other states as well as studies on a national level, GED recipients reported a variety of positive outcomes, ranging from obtaining employment and greater income to enrollment in postsecondary education (Behal, 1983; Cervero & Peterson, 1982; Valentine & Darkenwald, 1986). When assessed, personal benefits, such as increased self-confidence, tended to outweigh educational or job-related benefits (Carbol, 1987; Thompson & Jimmerson, 1986). Of concern, however, is the discrepancy reported in some studies between anticipated benefits and those actually received (Carbol, 1987; Cervero & Peterson, 1982). It appears that while obtaining the GED can be beneficial in a number of ways, a significant proportion of GED recipients

may not reach the further goals that they anticipated.

In all studies it is clear that some GED recipients experience great benefits from obtaining the GED certificate while others do not. Some research indicates a relationship between individual characteristics such as age and benefits obtained, but such evidence of such relationships is limited. No studies have gone beyond limited demographic information to investigate other individual and situational factors that might affect outcomes. A number of researchers, educators and GED program officials have pointed out the need for such investigations. For example, Whitney (1986), in his comments on the Wisconsin studies cited above, called for further investigation of the situational factors that might affect GED recipients' success in postsecondary education as well as in other endeavors.

In summary, prior to this study, existing information about the outcomes of the Wisconsin GED certification program was limited; findings from other studies were inconclusive. Until we identify the wide range of benefits anticipated and realized by Wisconsin GED recipients, our programs and policies may not help all GED candidates to achieve their potentially diverse goals. We have known little about why some GED recipients may be successful in later pursuits and some might not. Such information is important to ensure that higher passing score requirements, career counseling or other interventions will address the factors that might adversely affect their attainment of other goals.

Methodology

To achieve the study's objectives, two methods of data collection were utilized: (a) a mailed questionnaire, and (2) telephone interviews. The questionnaire permitted the collection of benefit data from a large group of GED graduates. The interviews were designed to yield more detailed information from a smaller number of respondents about individual life circumstances that affect outcomes.

It should be noted that currently in Wisconsin, a second

credentialling option is also available, the High School Equivalency Diploma (HSED). Adults may obtain this credential by passing two additional proficiency tests (health and civics) along with the GED tests. In this report, "GED graduate" will be used as an all-inclusive term to refer to individuals who earned the HSED as well as those who earned the GED, except in the case of comparisons between the two groups.

Mail Survey

Sample Selection

A computerized listing of all GED graduates who received their credential from July 1989 to December 1989 was provided by the Department of Public Instruction (DPI). While initially it was planned to survey graduates who received the credential from January - June 1989, a comprehensive computerized data base was not initiated until July 1989. Prior to that time, GED graduate records were not sorted by date of completion, making it difficult if not impossible to isolate a representative sample for any given year. The desire to make comparisons across groups of individuals made it essential to control for potential effects related to date of graduation by surveying a large sample who graduated within a given time period.

The six month graduation period was used for sample selection to obtain a sufficiently large pool of potential respondents for the survey, a total of 1028 individuals. A time span of about 15 to 22 months existed between awarding of diploma and the survey, sufficient for a variety of possible effects to materialize. This time frame was similar to time frames in previous research, and thus permits some comparisons across studies. As noted by Valentine and Darkenwald (1986), a somewhat restricted time frame minimizes the problems of poor recall and low response rate due to the geographical mobility of potential respondents, although it does prevent the assessment of long-range outcomes.

While the initial sample represented the entire pool of GED graduates within the identified six month period, a key question is how representative the sample might be of all GED graduates in

Wisconsin. It is clear that, due to the new passing score requirements and the reduced number of test takers as well as test completers, GED graduates in 1989 are not directly comparable to GED graduates from previous years, either in initial characteristics or possibly in outcomes experienced. At minimum, these graduates have higher skills than a proportion of GED graduates from previous years who scored below 250. Whether or not the 1989 graduates experience more positive outcomes cannot be determined from this study, due to the lack of previous follow-up data. However, it should be noted that societal factors, such as changes in the job market and competition for jobs, as well as changes in the characteristics of GED graduates, will restrict the generalizability of outcomes assessed in any given year, especially those related to employment. This situation suggests the need for ongoing follow-up research, as discussed in the last section of this report.

Instrumentation

Two central concerns guided the construction of the survey questionnaire: (1) assessment of a wide range of potential benefits of GED graduation, including intangible outcomes, such as changes in self-concept, as well as tangible outcomes such as changes in employment; and (2) brevity and simplicity in questionnaire format, to promote a high response rate. These two concerns emerged from the review of previous research, which indicated that GED graduates perceive intangible outcomes to be as important or more important than tangible benefits, and which also indicated that response rates tend to be enhanced by a shorter questionnaire (Valentine and Darkenwald, 1986).

Two general types of information were desired: respondent perceptions of benefits related to obtaining the GED and data on respondent characteristics with potential relationships to outcomes. Questionnaire items representing benefits of GED completion were drawn from a variety of sources. A key initial source of items were previous follow-up studies of GED graduates. Since the range of outcomes assessed in these studies was rather

limited, particularly those pertaining to intangible benefits, related research was reviewed to identify potential outcomes of educational participation that might be relevant to GED graduation. A second source of survey items were in-depth interviews conducted with several GED graduates identified through local program contacts. These interviews yielded additional benefits as well as confirmed the relevance of items obtained from the research review.

Demographic data obtained on the questionnaire included age, sex, and race/ethnicity. To gather additional insight into possible benefits, respondents were asked to indicate if they had school-age children living with them, the educational attainment of their parents, employment status before and after earning the GED, and whether they received public assistance benefits before and after earning the GED. Other respondent data of interest were available from Department of Public Instruction records, including last grade completed in school, GED test scores, and primary reasons for taking the GED test. Extent of involvement in a formal GED preparation program also was assessed as an individual characteristic potentially related to outcomes after obtaining the GED. To provide the state VTAE office with feedback on the GED preparation program, respondents who participated in formal study were asked to evaluate the utility of the classes or learning center for enhancing a variety of skills and knowledge related to the GED test. This information, while not central to the primary goals of the study, was compiled and is described in a separate section of this report.

Drafts of the instrument were reviewed by the Wisconsin State VTAE Board adult basic education consultant, a researcher with previous experience in GED follow-up research, and a researcher at the national GED Testing Service office. In addition, pilot versions of the instrument were field-tested with GED graduates identified through local GED preparation programs. These graduates completed the instrument and were interviewed about their reactions to the content and format of the survey. Feedback from all of these sources were incorporated into the final instrument. Wisconsin

Survey Research Lab staff provided additional assistance with final format revisions.

The final version of the questionnaire is reproduced in Appendix B. Two aspects of the format deserves particular note. Benefits of GED graduation were assessed in two sections. Section A consists of more tangible changes, such as obtaining a new job, that only can be assessed in a yes or no response format. Section B consists of more intangible changes, such as enhanced self-confidence. For the purpose of analysis, it was possible and desirable to assess the extent of these changes on a four point Likert-type scale. A "not applicable" response category was used in section B, since a number of items pertained to changes that might not be possible for all respondents, such as changes in helping children with schoolwork, involvement in church activities, or in job performance. For consistency in format, all items in that section were given the "not applicable" response option.

Several additional strategies were used to promote brevity and simplicity of format. The questionnaire was printed front-to-back on a single 11" x 17" sheet and folded, reducing the apparent length of the instrument. The time needed for respondents to complete the survey was measured in the field tests, and found to average less than 10 minutes.

Data Collection Procedures

The questionnaires were mailed along with a cover letter and a pre-addressed, stamped return envelope in April. Two follow-up mailings to nonrespondents were conducted at approximately two week interviews. The follow-up mailings included revised cover letters and additional copies of the questionnaire. A total of 432 completed questionnaires were received from the three mailings, yielding an unadjusted response rate of 42%. When the 168 questionnaires returned as nondeliverable were subtracted from the total sample, the adjusted response rate became 50.2%. This rate compared quite favorably with previous follow-up studies. A comparison of respondent and nonrespondent characteristics is provided in the section on outcomes.

Data Analysis

Data preparation. Data preparation and entry into a computerized data base was handled by professional survey personnel at the Wisconsin Survey Research Laboratory. Handwritten comments on the questionnaires led to the modification of two questions, #62 and #63, regarding past and present employment. When answering these questions, a small number of respondents (n=10) wrote that they were incarcerated at the time of GED testing or at the time of the survey. This was not a response category on the original survey, so an additional category, "incarcerated," was added to questions 62 and 63. Initial coding categories for comments in response to the final, open-ended question about the GED program and its impact were generated by lab personnel and validated by the researcher. Twelve categories were identified, including one unspecified category for comments that did not cluster readily with any of the main groups. The majority of comments were about positive outcomes of GED graduation or the value of GED preparation programs. A very small proportion were negative. Since the comments primarily reinforced the questionnaire data, they will not be reported in detail in this report. A total of 282 respondents (65.3% of respondents) provided at least one response to the open-ended question.

Statistical Analysis. A variety of statistical procedures were used to analyze the questionnaire data. To answer the first research question, what are the benefits of obtaining the GED credential for Wisconsin GED recipients, simple descriptive statistics, including frequency distributions and means, were calculated initially for all variables. To identify relationships among the benefit variables, and to derive more parsimonious categories of benefits for further analysis, the statistical procedure factor analysis was applied to the benefit data. To answer the second research question, how do Wisconsin GED recipients vary in the benefits they experience, appropriate statistical procedures for group comparisions, such as chi-square and t-tests, analyses of variance, and correlational analyses were

applied to the data. The identified benefit factors and key single outcome variables were used in these analyses along with relevant demographic data. Additional information about specific statistical procedures is reported along with the description of findings later in this report.

Telephone Interviews

The goal of the telephone interviews was to address the third research question: what are the personal, social and situational factors that affect the nature and extent of benefits experienced by GED graduates? The intention was to go beyond assessing the simple relationship of demographic characteristics such as age or gender and to identify other variables that might be related to benefits. To accomplish this goal, a subsample was drawn from questionnaire respondents for participation in semistructured telephone interviews, using the procedures described below.

Selection of Sample

Purposive sampling was used to select potential interviewees. The sampling procedure was designed to permit comparisons between individuals with high reported benefits and low reported benefits, while controlling for the possible effect of key demographic variables: race/ethnicity, gender, age, and pre-GED employment status. These variables were identified as potentially significant based on previous research and theory. This procedure also ensured that interviewees were representative of certain key demographic groups. The multi-stage sampling process consisted of the following steps:

(1) The first key characteristic, race/ethnicity, was used to divide the total sample of survey respondents into 5 groups: white, Black, Hispanic, Native American, and Asian. Individuals with missing data on race/ethnicity (n=13) were dropped from the pool of respondents at this point.

(2) Within the group of white respondents, individuals were further divided into groups according to (a) gender, (b) age (under age 25; age 25 and above) and (c) employment status prior to earning the GED (employed; unemployed and looking for work;

unemployed and not looking for work). This resulted in the creation of 12 groups. The discovery of extreme responses among older respondents led to the creation of a separate interviewee group for individuals age 55 and above, increasing the total number of groups within the sample of white respondents to 13.

(3) For each individual, a total outcome score was calculated using their survey responses. Within each of the 12 groups of individuals under the age of 55, a pair of individuals was selected for interviewing, one with the highest total benefit score and one with the lowest score within the group. Respondents to the questionnaire had been asked to indicate their willingness to participate in a telephone interview, and to provide a telephone number. If an individual had not indicated willingness to be interviewed, a substitute was selected with the next highest or lowest benefit score. This process led to the identification of 24 individuals within the sample of white respondents under age 55 for the interviews.

(4) It was originally planned to use similar strategies to select one pair of men and one pair of women from the group of respondents over age 55. Due to the small number of men in this group and difficulty in contacting them, it was only possible to interview one man. A third woman was interviewed as a replacement, making a total of four interviewees over the age of 55.

(5) The small number of individuals in each minority group made it impossible to use the planned pairing procedure for sample selection. After incarcerated individuals and individuals who were not willing to be interviewed were removed from the sample, there was a possible total of 27 minority individuals available for interviewing. Of this group, six were unreachable due to disconnected telephone numbers or change of residence with no new telephone numbers. Ultimately 21 minority individuals were interviewed.

Interview Procedures

An interview guide was developed with questions pertaining to GED graduates' perceptions of the GED program and their life

situations prior to and after earning the GED credential. Pilot interviews (with individuals not included in the group selected above) were used to refine the interview guide and to improve the facility of the interviewers. The final interview guide is reproduced in Appendix C. Questions were modified as needed to assure clarity of meaning and to promote a natural sequence of discussion. All interviews were conducted by the researcher and a project assistant, who was also a GED instructor and thus quite familiar with the GED program and students. To ensure appropriate and consistent interview procedures, the researcher and assistant met initially to discuss interview procedures and continued to meet during the course of the interviews to discuss new insights and any problems. Interviewees were asked for permission to tape-record the interviews and all agreed to be recorded. Each interview was transcribed by a clerical assistant.

Data Analysis

Qualitative data analysis procedures were used to analyze the interview data. Coding procedures suggested by Bogdan and Biklen (1982) and Strauss and Cohen (1990) were used to identify major themes within areas including: reasons for leaving high school; factors affecting participation in the GED program; initial goals; factors affecting goal attainment; changes in self-concept; and community involvement. Patterns or trends were sought that distinguished between individuals who obtained great and little benefit from earning the credential.

Limitations

Several limitations of the study should be noted. First, the lack of control groups makes it difficult to establish the extent that life changes, such as obtaining employment, reported by GED graduates are significantly different from changes experienced by GED candidates who did not earn the credential, or by other adults without a high school diploma. While respondents were asked to identify outcomes that they attributed to earning the GED, these outcomes may also be due to unidentified individual or situational factors. Secondly, the overall findings may be affected by response

bias. Those individuals who returned the questionnaire may not be representative of the entire population of GED graduates. Differences in demographic characteristics of respondents and nonrespondents are discussed in the next chapter; other differences may also exist. Finally, outcome data reported on the questionnaire and in the interviews may also be affected by the social desirability of certain responses. Respondents on the whole may be more inclined to report more positive outcomes, and to attribute lack of change to situational factors rather than personal characteristics (such as their own motivation or skills). This is a potential problem inherent in all self-report data. These limitations suggest the need for some caution in attributing life changes to the GED alone, and in generalizing the findings to all graduates.

Chapter 2
FINDINGS: MAIL SURVEY

Respondent Characteristics

Demographic Characteristics

The original sample for the mail survey consisted of all individuals who were awarded the GED or HSED from July 1989 to December 1989. As noted in Chapter 1, of the 1028 individuals in that original sample, 432 responded to the mail survey. The characteristics of the total initial sample, based on information provided by the Department of Public Instruction, is reported in Appendix C. Characteristics of respondents and nonrespondents are compared in Table 1. The most notable differences between the two groups are in age, gender and race/ethnicity. Statistical tests (t=8.97, p<.000) indicated that the mean age of respondents was significantly higher than that of nonrespondents; chi-square tests indicated that the proportions of women (χ=40.57, p<.000) and nonminorities (χ=11.53, p<.001) were significantly higher for respondents than for nonrespondents. Cervero and Peterson (1982), in a national follow-up study of 1980 GED candidates, also found that respondents tended to be older and were more likely to be female than nonrespondents, although they did not find a difference between respondents and nonrespondents in race/ethnicity. These differences between respondents and nonrespondents will be considered in the interpretation of the findings, in particular as they relate to generalizations about outcomes.

Characteristics related to testing

Respondent and nonrespondent data related to GED testing, provided by DPI, are reported in Table 2. There was a statistically significant difference in overall test scores of respondents and nonrespondents (t=4.02, p<.000). However, the practical significance of the difference appears to be small, and does not suggest a significant bias in the sample. No other differences between the two groups in these characteristics were statistically significant.

Table 1
Characteristics of Respondents and Nonrespondents

Characteristic	Respondents (n=432)	Nonrespondents (n=596)
Mean Age (at time of test)	30.0 (SD=11.6)	24.5 (SD=7.9)
Gender [n(%) female]	268 (62.0%)	250 (41.9%)
Race/Ethnicity		
White	375 (86.8%)	437 (73.3%)
Black	15 (3.5%)	51 (8.6%)
Native American	10 (2.3%)	25 (4.2%)
Hispanic	16 (3.7%)	21 (3.5%)
Asian	3 (0.7%)	1 (0.2%)
Not reported	13 (3.0%)	61 (10.2%)
Last Grade Completed		
8th grade or less	22 (5.1%)	62 (10.4%)
9th grade	67 (15.5%)	90 (15.1%)
10th grade	147 (34.0%)	176 (29.5%)
11th grade	179 (41.4%)	260 (43.6%)
12th grade	12 (2.8%)	25 (4.2%)
Not reported	5 (1.2%)	5 (0.8%)

Graduates' reasons for taking the GED test have particular importance for this study. It is noteworthy that the most commonly reported reason for taking the GED test was further education, followed by personal satisfaction. In comparison, Baldwin (1990) reports that 32.8% of 1989 GED candidates in her national study indicated fulfillment of educational admissions requirements as their primary motivation, 32.2% indicated employment-related reasons, 21.5% indicated personal satisfaction, and 2.9% reported entering the military as their primary goal. The difference in the motivations of the national sample of candidates and Wisconsin GED

Table 2
Respondent and Nonrespondent Characteristics related to Testing

Characteristic	Respondents (n=432)	Nonrespondents (n=596)
Mean Test Score	280.8 (SD=24.4)	274.8 (SD=22.7)
Diploma Awarded		
GED	120 (27.8%)	185 (31.0%)
HSED	312 (72.2%)	411 (69.0%)
Reason for Testing		
Personal satisfaction	153 (35.4%)	185 (31.0%)
To further my education	175 (40.5%)	254 (42.6%)
Employment	81 (18.8%)	117 (19.6%)
Military	10 (2.3%)	21 (3.5%)
Other	13 (3.0%)	19 (3.2%)

graduates is substantial. These differences may be due to general differences in candidates as compared with those who actually pass the GED test. For example, adults with higher levels of skills, ie; those who are successful in passing the test, may likely be those who were more successful in previous schooling and therefore more likely to perceive further education as an attainable goal. The differences may also be due to unique characteristics of the Wisconsin GED population. In either case, the differences reinforce the need for caution when attempting to apply generalizations based on other studies to the Wisconsin population.

Benefits of GED Completion

In this section, benefit data are reported for the sample of respondents as a whole. Differences in benefits for subgroups and the relationship of outcomes to individual characteristics such as age and gender are reported in subsequent sections.

Relative Frequency of Perceived Benefits

Frequency distributions were calculated for responses on each benefit variable in sections A and B. Responses to section B items (on a four point Likert scale) were recoded to two categories (agree/disagree) to be comparable to the dichotomously scored items in section A. For the purpose of this analysis, "not applicable" responses were included in the "disagree" category (see discussion of not applicable responses below). The relative frequencies of the 43 outcomes are reported in Table 3.

As Table 3 indicates, in general intangible benefits were reported by higher proportions of respondents than tangible benefits. Earning the GED diploma appears to have the most widespread impact on graduates' attitudes towards education and their educational goals, as well as their general feelings of happiness, success, and life satisfaction. Tangible benefits such as job-related changes or participation in further education were reported less frequently. Outcomes related to participation in community, church and PTA groups were among those reported least often by respondents.

It is important to note that the percentages in Table 3 are based on the entire sample of respondents, despite the fact that some potential benefits were not applicable for all individuals. This approach was used since the purpose of this particular analysis was to assess the overall impact of the Wisconsin GED program. Yet, as Valentine and Darkenwald (1986) point out, the effects of GED completion can be underestimated because some benefits are feasible only for subpopulations of GED graduates. Initially it was planned to perform additional analyses excluding individuals who indicated that specific changes, such as helping children with schoolwork, were not applicable for them. As noted previously, the 33 outcome items in section B had a "not applicable" response category. However, the frequency distributions revealed that this category had been selected for items, such as change in self-confidence, that potentially were applicable to all respondents. In the telephone interviews, interviewees were asked

Table 3
Rank Order of Benefits by Frequency of Attainment

Item Text	Agree n(%)
I have a more positive attitude toward education	343 (79.4%)
I am happier	343 (79.4%)
I have higher educational goals	339 (78.5%)
I feel more successful	333 (77.0%)
I am more satisfied with my life	330 (76.4%)
I have more self-confidence	329 (76.2%)
I have higher career goals	326 (75.5%)
I have a greater interest in learning on my own	312 (72.2%)
I have more job opportunities	297 (68.7%)
I am more self-reliant	295 (68.3%)
I feel more intelligent	279 (64.6%)
I am more in control of my life	278 (64.3%)
I am more adaptable	270 (62.5%)
I set a better example for my children	267 (61.8%)
I feel that other people respect me more	261 (60.4%)
I am more assertive	249 (57.6%)
I am a better problem-solver	226 (54.6%)
I am more able to help other people	226 (52.3%)
I work harder	215 (49.7%)
I can communicate better with other people	212 (49.1%)
I am better able to take care of my family's needs	187 (43.3%)
I feel more powerful	183 (42.4%)
I have better relationships with my family	183 (42.4%)
I am more able to prevent people from taking advantage of me	180 (41.7%)
[Friends have] enrolled in GED preparation programs or taken the GED	175 (40.5%)
[I am] earning more money	159 (36.8%)

Item Text	Agree n(%)
[I have] participated in on-the-job training	157 (36.3%)
I do my job better	156 (36.1%)
I have better relationships with friends or co-workers	150 (34.7%)
I am more able to keep my job	147 (34.0%)
I am more financially independent	146 (33.8%)
I am more concerned with political affairs	136 (31.5%)
[I obtained] a better job with a new employer	128 (29.6%)
[I have] enrolled in a college degree program	126 (29.2%)
I am more able to help my children with their schoolwork	110 (25.5%)
[A member of my family] has enrolled in GED preparation classes or taken the GED	108 (25.0%)
I play a more active role in my community	100 (23.1%)
[I have] enrolled in a vocational diploma program	94 (21.8%)
[I got] a job promotion	79 (18.3%)
[I enrolled] in a noncredit adult education course	64 (14.8%)
I am more involved in school activities, like PTA	58 (13.4%)
I play a more active role in my church	53 (12.3%)
[I have] entered the military	13 (3.0%)

Table 4
Employment Status Before and After GED Graduation

Employment Status	Fall 1989 (at GED test)	Spring 1991 (at survey)
Employed full-time	185 (42.8%)	210 (48.6%)
Employed part-time	70 (16.2%)	77 (17.8%)
Unemployed, not looking for work	102 (23.6%)	72 (16.7%)
Unemployed, looking for work	65 (15.0%)	56 (13.0%)
Not reported/Incarcerated	10 (2.4%)	17 (3.9%)

about their reasons for selecting the not applicable response category. The interviewees said that in some cases they selected "not applicable" to indicate that they had not desired a change of that sort, or that no such change had occurred, rather than to indicate that the change was not possible for them. Accordingly, the validity of all "not applicable" responses became questionable and it was not considered appropriate to use these responses as the basis for identifying subpopulations. Therefore it can only be noted that the extent of benefits such as those related to children and those related to job performance might appear considerably greater if only eligible respondents were considered.

Overall Goal Attainment

The last item in section B asked respondents whether they had achieved their goals for obtaining the GED. Of the total sample, 150 (34.7%) strongly agreed that they had achieved their goals, 185 (42.8%) agreed, 51 (11.8%) disagreed, and 45 (10.4%) strongly disagreed. Thus, a high proportion of respondents felt their goals had been realized. Information was obtained through the interviews about some of the reasons that others had not achieved their goals and is described in a later section of the report.

Change in Employment Status

Data was gathered on respondents' employment status at the time of GED testing and at the time of the survey. As Table 4 indicates, a considerable proportion of respondents, 59%, were employed full or part-time when they took the GED test. When combined with the 15.0% of respondents who were seeking employment, a total of 74% of the sample were in the workforce at the time of GED testing. This is a slightly lower than the proportion of GED candidates in the 1989 national GED candidate survey who were in the workforce (80%). However, it is much higher than the 44% workforce participation rate of the U.S. civilian population of high school noncompleters in 1990 (Baldwin and Spille, 1991). As Baldwin and Spille (1991) point out, these findings suggest that GED candidates have strong motivation to work. Further, the interviews revealed that a number of respondents who were unemployed were temporarily not looking for work at the time of GED testing because they had chosen to concentrate on preparing for the GED tests. The decrease in respondents who were unemployed and not looking for work after obtaining the GED further establishes the graduates' motivation to seek and maintain employment.

A clear increase in the overall employment rate of the respondents is evident in Table 4. About 66% of respondents were employed full or part-time at the time of the survey in Spring 1991, as compared to 59% at the time of testing in Fall 1989. This increase was found to be statistically significant, using a McNemar test for change in proportions (χ=10.38, p=.0013). In particular, as noted above, the overall decrease in individuals unemployed and not looking for work was considerable. Further, the decrease in the proportion of individuals who were unemployed and looking for work is noteworthy in light of Wisconsin's overall employment trends during this time period. According to the Wisconsin State Department of Industry, Labor and Human Relations, seasonally adjusted state unemployment rates increased from 4.3% in Fall 1989 to 5.8% in Spring 1991. While the overall proportion of GED graduates who were unemployed remained higher than the state

Table 5
Parents' Levels of Educational Attainment

Level of Education	Mother	Father
Less than high school diploma	135 (31.2%)	163 (37.7%)
High school diploma	165 (38.2%)	111 (25.7%)
GED credential	26 (6.0%)	22 (5.1%)
Some years of college	37 (8.6%)	46 (10.6%)
College degree	43 (9.9%)	40 (9.3%)
Don't know/not reported	26 (6.0%)	50 (11.6%)

average, their employment gains despite this overall trend provide some support for the positive impact of the GED program.

Change in Public Assistance

Respondents were also asked whether they were receiving some kind of public assistance before and after they passed the GED test. Of the 114 individuals who reported receiving public assistance before earning the GED credential, 34 (29.8%) indicated that they had stopped receiving assistance at the time of the survey. Fourteen individuals who were not receiving assistance before earning the GED were receiving it at the time of the survey. However, the overall change in proportion of those receiving public assistance, from 26.4% to 21.7% of the respondents, was statistically significant (χ=7.52, p=.0061).

Family Patterns of Educational Disadvantage

In an effort to ascertain previous family patterns of high school completion, respondents were asked to indicate their parents' highest level of educational attainment. The results are presented in Table 5. The majority of respondents indicated that at least one parent had earned a high school diploma or higher credential, though a substantial minority reported that one or both parents had not completed high school. Clearly, the GED program is

not serving primarily individuals whose parents have limited levels of educational attainment.

Major Factors of Benefit

Factor Analysis: Procedures

As noted in the section on methodology, factor analysis was used as a means of ascertaining relationships among the benefit variables, and ultimately to identify groups, or factors, of benefits. Factor analysis is a procedure which groups variables, in this case the benefit items, based on their similarity to each other. This procedure was considered particularly useful in this study given the large number of benefits included on the questionnaire. A smaller number of benefit factors promised to be more comprehensible and useful from a practical perspective; it would also permit statistical analysis of relationships between different kinds of benefits and other variables.

Due to conceptual differences in the benefits they represented, items in section A and section B were factor analyzed separately. The 10 items in section A consisted of tangible life changes (such as enrolling in an educational program) while the items in section B were primarily subjective assessments of personal characteristics and life situations. Prior to the factor analysis, several data preparation procedures were necessary. Mean impletion was used to correct for missing data on each variable. The dichotomously scored variables in Section A were examined for extremely unbalanced frequency splits. Such an unbalance would lead to the identification of relationships among variables based on a very few cases. As recommended by Rummel (1970), variables with a frequency of greater than 90% for one value were omitted. One item, question 8 (have you entered the military) had a response frequency distribution of 97% (no) / 3% (yes) and therefore was not appropriate for analysis. Thus, a total of 9 items were included in the factor analysis of section A. Section B consisted of 33 variables that were included in the factor analysis (question 44 regarding overall goal attainment was not included). For these variables, "not applicable" responses were recoded to "1" (strongly

disagree) to reflect the lack of indicated change on those items.

A complete description of all technical aspects of the factor analyses used in the study is beyond the scope of this report. In summary, a series of factor analyses was performed on both sets of variables, requesting two through seven factor solutions. Both orthogonal rotations (which create uncorrelated factors) and oblique rotations (which create correlated factors) were utilized. There were not major differences in the orthogonal and oblique solutions for either set of variables; ultimately oblique solutions, with correlated factors, was chosen because the benefit factors were assumed to be conceptually related.

Examination of eigenvalues and a scree plot suggested that a four factor solution would be most appropriate for the benefits in section A. While this solution included a factor defined by a single item, therefore more difficult to interpret, it was generally the most meaningful solution. The four factors accounted for 61.9% of the total scale variance. While the eigenvalue criterion suggested a six factor solution for section B items, the seven factor solution included an additional factor with conceptual utility, and it was selected as the final solution. These factors explained 67.9% of the scale variance.

Each benefit factor, the items associated with it, and their factor loadings are presented in Table 6. The factor loadings are similar to correlation coefficients and indicate the extent that a variable is associated with the underlying factor. Only items with factor loadings greater than .40 were used to define each factor. Three items did not load above the criterion on any factor; these items are included in brackets on Table 6 under the factor with which they were most highly associated. Two items loaded above the criterion on more than one factor; these are indicated on the table. A brief interpretation of each factor is provided below.

Tangible Benefit Factors: Section A

Occupational Advancement. This factor is comprised of items that are clearly job-related benefits. It is quite similar to the factor "Job Advancement" identified by Valentine and Darkenwald

Table 6
Benefits of GED Graduation: Factor Solutions

Item #	Item Text	Loading
	Section A: Tangible Benefit Factors	
	Factor 1: Occupational Advancement	
(7)	[I am] earning more money	.87
(6)	[I got] a better job with a new employer	.77
(5)	[I got] a job promotion	.65
(1)	[I] participated in on-the-job-training	.60
	Factor 2: Further Education	
(4)	[I] enrolled in a non-credit adult education course	.86
(3)	[I] enrolled in a college degree program	-.53
	Factor 3: Vocational Training	
(2)	[I] enrolled in a vocational diploma program	.83
	Factor 4: GED Participation of Others	
(9)	[Someone in my family] has enrolled in GED preparation classes or taken the GED test	.87
(10)	[One of my friends] has enrolled in GED preparation classes or taken the GED test	.57
	Section B: Intangible Benefit Factors	
	Factor 1: Life Satisfaction (mean item mean=2.88)	
(30)	I am more satisfied with my life	.76
(29)	I have more self-confidence	.63
(17)	I am happier	.63
(33)	I feel more successful	.55
(24)	I feel that other people respect me more	.46
(40)	I am more in control of my life	.47*
	Factor 2: Enhanced Parental Role (mean item mean=1.99)	
(35)	I am more able to help my children with their schoolwork	.88
(28)	I set a better example for my children	.81
(34)	I am more involved with school activities, like PTA	.64

Factor 3: Better Relationships with Others (mean item mean=2.39)

(31) I am more able to prevent people from taking advantage of me	.65
(38) I am more able to help other people	.63
(37) I have better relationships with my family	.62
(41) I work harder	.53
(32) I can communicate better with other people	.52
(40) I am more in control of my life	.47*
(39) I do my job better	.46*
[(22) I am better able to take care of my family's needs	.39]
[(43) I feel more powerful	.38]

Factor 4: Financial Security (mean item mean=2.28)

(14) I am more able to keep my job	.73
(26) I am more financially independent	.71
(11) I have more job opportunities	.67
(39) I do my job better	.59*

Factor 5: Improved Self-Image (mean item mean=2.59)

(15) I am more assertive	.67
(18) I am a better problem solver	.67
(19) I am more self-reliant	.60
(16) I have a greater interest in learning on my own	.57
(12) I have better relationships with friends or co-workers	.55
(13) I feel more intelligent	.53
[(21) I am more adaptable	.39]

Factor 6: Higher Aspirations (mean item mean=3.06)

(23) I have higher educational goals	.87
(25) I have higher career goals	.82
(20) I have a more positive attitude toward education	.51

Factor 7: Greater Community Involvement (mean item mean=1.86)

(27) I play a more active role in my church	.79
(42) I am more concerned with political affairs	.51
(36) I play a more active role in my community	.42

* Item loaded above .40 on more than one factor

(1986). As they note, these benefits are those presumably accruing to graduates who were already working at the time of GED testing. Of interest is the inclusion of on-the-job training with these benefits, rather than with educational outcomes.

Further Education. The two items on this factor each represent participation in further education. The negative loading for enrollment in a college degree program means that it is related to the factor in an opposite way from enrollment in noncredit adult education. Logically, this suggests that individuals who enroll in college degree programs are unlikely to enroll in noncredit adult education, and vice versa.

Vocational Training. This factor consisted of only one item, enrollment in a vocational diploma program. While from a technical perspective, one item is not sufficient to define a "factor," vocational training was considered important enough to retain it as a separate type of benefit. It seems significant that this item did not load on the Further Education factor, suggesting that it may be a conceptually different benefit. The factor was labelled "training" rather than education to emphasize that distinction.

GED Participation of Others. The two items on this factor obviously indicate the participation of family or friends in the GED program.

Intangible Benefit Factors: Scale B

Life Satisfaction. This factor is defined most clearly by the highest loading item. Other items referring to greater confidence, happiness, success, respect from others and a sense of control are also related to a general sense of satisfaction with oneself and one's life.

Enhanced Parental Role. The items associated with this factor all clearly pertain to a parent's relationship with his/her children, most specifically in connection with schooling.

Better Relationships with Others. This factor includes items that all refer to interactions with other people, with three exceptions. Two exceptions, "I am more in control of my life," and "I feel more powerful" may be associated with this factor since a

Table 7
Relationships Among Tangible Benefits: Section A

Benefit Factor	F1	F2	F3	F4
F1: Occupational Advancement	-			
F2: Further Education	.12	-		
F3: Vocational Training	.01	-.11	-	
F4: GED Participation of Others	.10	.02	.05	-

sense of increased personal control suggests less dependency on others. The relationship of the other exception, "I work harder," is more difficult to ascertain.

Financial Security. This factor is comprised primarily of job-related outcomes, such as more job opportunities, that all are indicative of greater financial security as an underlying benefit.

Improved Self-Image. The majority of items associated with this factor represent perceived changes in personal attributes, including greater assertiveness, problem-solving abilities, self-reliance, and intelligence. The item "I have a greater interest in learning on my own" has a logical relationship to improved perceptions of one's abilities, particularly those that relate to intelligence and problem-solving skills. The association of "I have better relationships with friends or co-workers" with this factor is less clear, but in general is reflective of greater self-esteem.

Higher Aspirations. This factor includes changes in educational and career goals as outcomes of GED completion. The association of the outcome "I have a more positive attitude toward education" with these enhanced goals is self-evident.

Greater Community Involvement. The items loading on this factor all pertain to respondents' involvement with the community,

Table 8
Relationships among Intangible Benefit Factors: Section B

Benefit Factor	F1	F2	F3	F4	F5	F6	F7
F1: Life Satisfaction	-						
F2: Parental Role	.15	-					
F3: Relationships	.29	.22	-				
F4: Financial Security	.23	.22	.27	-			
F5: Improved Self-Image	.41	.18	.44	.26	-		
F6: Higher Aspirations	.43	.19	.38	.27	.38	-	
F7: Community Involvement	.07	.21	.30	.17	.18	.13	-

either in general or specifically with church or political affairs.

Relationships among Benefit Factors

As mentioned above, the benefit factors within each section were assumed to be conceptually related to each other; i.e; improved self-image might be related to better relationships with others due to a common underlying dimension of change. Oblique factor analysis provided a means of determining the extent of such relationships based on the correlation among the benefit factors in each section. These correlations are reported in Tables 7 and 8.

Table 7 suggests that the relationships among tangible benefits are weak. Conceptually, these benefits appear to be relatively distinct. This may be partly due to the time frame of the study, in which it was possible to assess relationships only among more immediate benefits of GED graduation. It is possible that a stronger association between occupational advancement and participation in education or training would be discovered if data were collected on long-term outcomes.

In contrast, higher correlations were found among the intangible benefit factors, presented in Table 8. Among the more substantial were the correlations between Life Satisfaction and two factors: Improved Self-Image and Higher Aspirations; the associations between Better Relationships with Others and three factors: Improved Self Image, Higher Aspirations, and Greater Community Involvement; and the correlation between Improved Self-Image and Higher Aspirations. In summary, changes in goals, self-perceptions, and life satisfaction are most highly interrelated; these relationships, however, are moderate enough to suggest that the factors do represent different kinds of benefits.

Calculation of Factor Scores

For use in further analyses, factor scores were calculated for each individual based on the derived factors, with one exception. Scores on the factor Further Education, since it consisted of two items with an inverse relationship to each other, posed potential problems for interpretation. Therefore, the two items associated with this factor (enrolling in a college degree program and enrolling in a noncredit adult education class) were treated as separate variables in the remaining analyses.

Relationships Between Tangible and Intangible Benefits

Calculation of factor scores permitted the analysis of relationships between tangible benefits and intangible benefits. There were relatively few significant associations between the two kinds of benefits. There was a strong positive relationship between Occupational Advancement and Financial Security (r=.50, p<.001). Higher scores on Higher Aspirations were associated with enrollment in vocational diploma programs (t=-2.67, p=.008; the negative t statistics in this and the following comparisons were due to the coding of responses: enrollment = 1, no enrollment = 2) and enrollment in college degree programs (t=-6.32, p=.000). In contrast, graduates who enrolled in college had lower scores on Financial Security (t=2.69, p=.007); this is possibly due to reduced employment while in the student role. Individuals who had enrolled in a noncredit adult education class had significantly

higher scores on Improved Self-Image (t=-2.28, p=.023) than those who hadn't enrolled and lower scores on Improved Relationships with Others (t=2.26, p=.025).

At least two points based on these results are worth noting. First, it is noteworthy that higher aspirations are related to actual participation in education or training. Graduates who acquire higher educational goals tend to be pursuing these goals in a relatively short time after earning their GED. Second, changes in self-image do not appear to have a relationship to participation in college or vocational training programs, or with occupational benefits, for the sample as a whole.

Relationship of Benefits to Individual Characteristics

The second objective of this study was to determine how GED graduates might vary in the benefits they experience after obtaining the GED. Specifically, differences in benefits were assessed between groups of graduates based on initial motivations for earning the GED credential, gender, age, race/ethnicity, and pre-GED employment status. Also examined was the potential relationship between benefits and GED test scores, preparation for testing, and nature of the credential awarded (GED versus HSED). Results of these analyses are described in the following sections.

Relationship of Initial Motivations and Benefits

As described earlier, GED candidates have different primary reasons for obtaining the GED credential. Logically, these motivations should have an impact on the outcomes experienced by graduates. For example, individuals who take the GED test for employment-related reasons would be expected to obtain greater job-related benefits than individuals who take the GED test for personal satisfaction; individuals who earn the credential in order to pursue further education would be expected to report higher levels of participation in further education than other individuals. Accordingly, initial motivations presumably would be related to outcomes obtained by different individuals. In addition, consideration of motivations should lead to a more valid interpretation of overall outcome data. For example, a small

proportion of GED graduates might report high scores on Occupational Advancement, suggesting that the GED is not very beneficial in terms of enhanced employment opportunities. However, if the majority of individuals who actually sought changes related to Occupational Advancement were able to attain them, then the value of the GED in relation to employment would be greater than initially apparent.

To determine the relationship between initial motivations and benefits, the sample was divided into five groups based on the reason they indicated for taking the GED at the time of testing: employment, further education, military, personal satisfaction, or other. The small number of respondents who indicated "military" (n=10) and "other" (n=13) as primary reasons for taking the GED, in comparison to the size of the other groups, made statistical tests of differences between all groups inappropriate. Therefore, respondents with "military" and "other" as reasons for earning the GED were dropped from further analyses. However, it can be observed that of the 10 individuals who had entering the military as their primary goal, 6 (66.7%) had actually entered the armed forces, a considerable proportion. The goals of respondents who indicated "other" reasons were not specified, and thus it was impossible to examine relationships between their goals and outcomes.

For the remaining three groups, chi-square statistics and one-way analyses of variance were used to determine relationships between initial goals and the benefit factors or variables described in the previous section. Surprisingly, there was a significant relationship between goals and only one outcome: enrolling in a college degree program. Of the group who had further education as a primary motivation, 43.5% reported enrolling in a college degree program, compared to 30.0% of the employment motivation group (χ=11.29, p=.0008) and 23.0% of the group who had personal satisfaction as their primary goal (χ=11.30, p=.0008). There was not a significant difference in the proportions of the employment motivation group who enrolled in college as compared to the group motivated by personal satisfaction.

It is notable that respondent motivations did not appear to have a relationship to any of the other educational or employment-related outcomes reported by respondents. This may be due to the rather broad categories of initial motivations, or to the close relationship of educational and employment-related goals, which became particularly obvious in the follow-up interviews.

Relationship of Benefits and Key Demographic Characteristics

Gender. Significant differences were identified between women and men on several of the benefit factors. Men's scores were significantly higher on Occupational Advancement (t= -2.62, p=.009; gender was coded as male=1, female=2) and Community Involvement (t = -2.18, p=.030) than women's scores. Women on the whole reported significantly higher changes on Life Satisfaction (t=3.01, p=.003) and Enhanced Parental Role (t = 5.14, p =.000) than men. Two points are particularly worthy of mention. Women were more likely to have school-age children living with them than men (r=.19, p < .001), which would logically account for some of the difference in outcomes related to parental role. In contrast, there were no significant differences in women and men's employment status before taking the GED test, which suggests that other reasons make men more likely to benefit on the job from obtaining the GED than women.

Age. There were a number of relationships between respondent age and benefits of obtaining the GED credential. Younger adults were likely to have higher scores on Occupational Advancement (r= -.13, p<.01) than older adults. Younger adults were more likely to have friends and family participate in the GED program (r= -.19, p<.001). The average age of respondents who enrolled in a college degree program was significantly lower than those who did not (t= 3.67, p=.000). In addition, there was a significant relationship between age and six of the seven intangible benefit factors. Older adults indicated more positive changes related to Enhanced Parental Role (r=.15, p<.01), Improved Self-Image (r=.14, p<.01), and Greater Community Involvement (r=.16, p<.001). In contrast, younger adults were more likely to indicate positive changes related to

Better Relationships with Others (r=-.13, p<.01), Financial Security (r=-.13, p<.01), and Higher Aspirations (r=-.26, p<.001). When interpreting these findings, it should be noted that the relationships, though statistically significant, for the most part were relatively weak.

Race/Ethnicity. Due to the small number of respondents in each minority group, for the purpose of comparison two groups were created: white/nonwhite. The Asian respondents were dropped from the analyses due to their high previous educational attainment, which made them particularly distinctive as a subgroup. The analyses indicated no significant difference between white and nonwhite respondents on any of the outcome factors.

Preemployment Status. There were several logical relationships between GED graduates' employment status at the time of GED testing and the benefits they reported. Employed individuals tended to have higher scores on Occupational Advancement than unemployed individuals (t=2.13, p=.034; employment was coded as unemployed=1, employed=2). Employed individuals reported more positive changes in Financial Security (t= 2.62, p=.009) than unemployed individuals. In contrast, employed individuals were less likely to report positive changes in Enhanced Parental Role than unemployed individuals (t=-7.57, p=.000). This finding is at least partly explained by the relationship between having school-age children and unemployment at the time of the GED test (t= -2.89, p=.004).

Characteristics related to Testing and Outcomes

Test scores. Two significant relationships were discovered between an individuals' GED test scores and outcomes. There were positive relationships between entering a college degree program and English test scores (t=-2.62, p=.009) and Math test scores (t= -2.55, p=.011). Specifically, the mean English and Math test scores of individuals who enrolled in college were 53.7 and 54.5 respectively, in comparison to mean scores of 51.8 and 52.8 for those who didn't enroll in college. Once again, while these differences are statistically significant, the practical significance of the difference appears to be relatively small.

Preparation for Testing. There were a few differences in outcomes between respondents who studied in classes/learning centers for the GED and those who did not. A higher proportion of participants (25.7%) than nonparticipants (15.4%) reported enrolling in a vocational diploma program after earning the GED (χ=5.26, p=.022). On the whole, participants reported more positive changes in Enhanced Parental Role (t=2.26, p=.024) and Improved Self-Image (t=2.36, p=.019) than nonparticipants. In addition, participants were more likely to have family or friends who also participated in the GED program (t=2.55, p=.011). No relationship was found between the number of weeks that participants spent in classes and any of the reported outcomes.

Credential. Only one significant relationship was identified between the nature of the respondents' credential (GED or HSED) and reported outcomes. Respondents who received the GED credential had higher scores on Occupational Advancement than respondents who earned the HSED (t=.1.98, p=.049; credentials were coded as HSED=1, GED=2). There was no relationship between nature of credential earned and respondents' employment status prior to earning the credential, which might have had an impact on this outcome. This finding and the lack of other relationships suggest that for this group the new credential had little impact on outcomes.

Perceptions of GED Classes

An additional goal of the study was to determine the extent that GED graduates participate in formal GED preparation programs and to assess their perceptions of these programs. The majority of respondents, 66.9%, indicated that they studied at a learning center or took classes to prepare for the GED test. In contrast, while 84% of respondents in the 1989 national GED Candidate Survey indicated that they studied before taking the GED test, only about 39% of the national sample studied in a formal program (Baldwin, 1991). This finding raises important questions: are those who study in formal programs more likely to pass the exam? Do unique aspects of the Wisconsin GED program, such as the HSED option or the passing score requirements, prompt greater participation in formal

programs? Such questions merit further investigation.

Length of Preparation

Of the 289 respondents who attended classes or a learning center to prepare for the GED, slightly more than half, 55%, spent 8 weeks or less in preparation for the GED test. About 30% spent between two to six months in preparation, and only 13.5% prepared for more then 6 months. Thus, while a high proportion of respondents engaged in formal preparation for the test, the length of time spent in preparation by the majority of respondents was relatively short.

Respondents who studied were also asked if they stopped attending classes for two weeks or more and then started again. About 25% indicated that they had stopped at least once during the course of their preparation for the test. Of these 75 individuals, 46 (61.3%) stopped once, 18 (24.0%) stopped twice and 5 (6.7%) stopped three times prior to completing their preparation and taking the GED. Space limitations precluded questions about respondents' reasons for "stopping out." These study patterns do merit further investigation, particularly as they relate to the apparently high dropout rate in adult basic education and GED preparation programs. Other research (Fingeret, 1985) indicates that ABE students do not perceive themselves to be program dropouts in same way as ABE staff do; in fact, they see the time away from class as necessary to attend to other responsibilities. Therefore, it may be desirable for individuals who need more extensive GED preparation to be able to take some time off during the course of study without being labelled a "drop-out."

Value of Classes or Learning Center Program

The 289 respondents who studied were asked to evaluate how helpful the GED classes or program were for acquiring a variety of skills and knowledge. Table 9 presents each skill area and the distribution of responses. Clearly, the great majority of individuals who chose to attend preparation programs felt that these programs were at least somewhat helpful for acquiring skills and knowledge. Overall, educational programs were perceived to be

Table 9
Perceived Value of GED Preparation Programs/Classes

Skills/Knowledge	Perceived Utility of Classes		
	Very Helpful	Somewhat Helpful	Not Helpful
Improving reading skills	101 (34.9%)	115 (39.8%)	60 (20.8%)
Improving math skills	184 (63.7%)	84 (29.1%)	18 (6.2%)
Improving writing skills	123 (42.6%)	110 (38.1%)	44 (15.2%)
Knowledge of science	92 (31.8%)	134 (46.4%)	50 (17.3%)
Knowledge of social studies	100 (34.6%)	130 (45.0%)	46 (15.9%)
Improving test-taking skills	147 (50.9%)	101 (34.9%)	31 (10.7%)
Increasing self-confidence	154 (53.3%)	93 (32.2%)	33 (11.4%)
Preparing for further education	147 (50.9%)	95 (32.9%)	37 (12.8%)
Improving job-related skills	79 (27.3%)	107 (37.0%)	86 (29.7%)

Note: The total n in each row varies due to missing cases.

most helpful for the improvement of math skills: 92.7% of respondents indicated that educational programs were very helpful or somewhat helpful for assisting them in this area.

When "not helpful" responses are considered, GED educational programs were perceived to be least helpful for improving job-related skills and for improving general reading skills, in comparison to other areas. This perception likely reflects at least two factors. First, presumably the respondents had enrolled in classes for GED test preparation, and the improvement of job-

related skills was not the central reason for their participation. Second, it should be kept in mind that respondents were not asked to identify the areas in which they actually needed educational assistance. Thus, the number of respondents who indicated that classes were not helpful for development of a particular skill reflects the number of individuals who did not need additional preparation in that skill, as well as individuals who needed instruction in that skill but felt that the classes were inadequate. It is possible that an area like reading instruction, with a higher proportion of "not helpful" ratings, may not be a high area of need for many individuals who enroll in classes. The relatively short duration of preparation indicated by the majority of respondents also suggests that general reading levels of these individuals might have been relatively high prior to their enrollment in the GED program. Finally, it should be re-emphasized that a significant number of respondents did indicate that educational programs were very helpful for improving their skills in all areas.

One final caution is relevant when interpreting of these responses. The perceptions of these respondents cannot be considered representative of all individuals who participate in GED preparation programs. This sample represents successful GED candidates alone, and it is logical to assume that there is a relationship between positive educational experiences and success on the GED test. While this limitation does not negate the positive perceptions of this study's sample, it does suggest the need to assess perceptions of a wider range of program participants, including program dropouts and individuals who are not successful in passing the GED exam, to gain a more comprehensive student assessment of GED preparation programs in Wisconsin.

Summary

The results of the mail survey indicate that Wisconsin graduates report a variety of benefits from obtaining the GED credential. While the most commonly reported benefits are more intangible changes, including Life Satisfaction and Higher

Aspirations, a sizeable proportion of graduates also obtain employment and enter educational programs. For example, employment rates of graduates increased from 59% to 66% during a time when overall state employment rates dropped by 1.5%. Approximately 44% of graduates who indicated further education as their primary motivation enrolled in a college degree program within the time period of the study. Importantly, 77.5% of respondents felt that they had achieved the goals that they had initially for earning the GED credential.

While these statistics provide an overall indication of benefits experienced by GED graduates, the relationship of benefits to other variables was examined to illuminate potential differences in the outcomes reported by subgroups in the sample. A number of relationships between outcomes and demographic characteristics such as age, gender, and employment status were identified, but from a practical perspective the majority of these relationships were small. There were also some relationships between GED test scores and test preparation, but again these relationships were small. In general, graduates who participated in GED classes or learning center programs indicated that these educational programs were helpful for improving a variety of skills.

These findings suggest the need to explore other factors to understand the differences that existed among graduates in the outcomes they reported. The interview findings, reported in the next chapter, provide some information about these factors.

Chapter 3
RESULTS OF TELEPHONE INTERVIEWS

Respondent Characteristics

As discussed earlier, the central purpose of the telephone interviews was to clarify the factors that affect the nature and extent of outcomes experienced by GED graduates. Purposive sampling was used to select interviewees who reported relatively high and low numbers of benefits, within groups defined by key demographic characteristics. Characteristics of the overall group of interviewees are summarized in Table 10. As described previously, it was not possible to use the planned pairing procedure for sample

Table 10
Characteristics of Interview Respondents
by Racial/Ethnic Group

Characteristic	Racial/Ethnic Group				
	White (n=28)	Black (n=7)	Hispanic (n=7)	Native Amer. (n=5)	Asian (n=2)
Gender					
Male	13	3	1	1	1
Female	15	4	6	4	1
Age					
< age 25	12	2	3	1	-
age 25 - 54	12	5	4	4	2
age 55 and over	4	-	-	-	-
PreGED Employment					
Employed	11	3	6	2	-
Unemployed, not looking for work	8	2	1	3	2
Unemployed, looking for work	9	2	-	-	-

selection within the minority groups or with the adults over age 55. Table 11 indicates that this led to the inclusion of a larger proportion of women, individuals over the age of 25, and employed individuals.

As a part of the analysis, the original intention was to make general comparisons between respondents who reported extensive benefits and those who reported relatively few benefits. However, as a result of the survey analysis and the interviews, making absolute distinctions between the two groups began to appear potentially misleading. The outcome scale was comprised of a disproportionate number of intangible benefit factors, thus making a high total benefit score dependent on the experience of those types of outcomes. Since there was not a consistent relationship between intangible outcomes and benefits such as participation in further education or occupational advancement, an individual could have experienced relatively high benefits of one type but low benefits in another area. Accordingly, in the analysis, it seemed more appropriate to determine what factors affected graduates' experience of different kinds of benefits, rather than to make generalizations about groups of individuals based on overall outcome scores. This chapter is organized according to key areas addressed in the interviews; the discussion includes basic descriptive information about GED graduates' background and life situations in addition to insights regarding their experience of different outcomes.

Findings

Major findings from the interviews are grouped into the following sections: reasons for leaving high school, factors affecting participation in the GED program; graduates' goals; factors affecting goal attainment; changes in self-concept; and community involvement outcomes.

"I kind of felt out of place:" Reasons for Leaving High School

Wisconsin GED graduates describe a variety of reasons that led to their decisions to leave school before earning their high school diplomas. These are similar to the reasons examined by Baldwin

(1990) in her national study. These reasons can be classified into two general categories based on the extent that they are related to an individual's life situation or to schooling itself.

Life Situation. A number of graduates left school in order to obtain employment, to contribute to family incomes or support themselves. Others had to leave school due to pregnancy or marriage. Typically, these types of reasons for leaving school were described only by graduates over the age of 25. It seems likely that drop-outs who leave school for such reasons generally do not have the opportunity to complete the GED until their children are older or their work-related responsibilities have been lessened.

School-related factors. Some graduates left school due to "bad grades," typically combined with a dislike of school. Some left because they had insufficient credits to graduate with their class or to be promoted to the next grade. While sometimes graduates reported difficulty with schoolwork, others reported boredom with school, initially earning high grades but then "getting turned off" rather than feeling unable to do the work. In a few cases, graduates were openly critical of teachers and the school system. D., age 32, stated "I just felt the teachers were not giving me fair opportunities. I didn't figure they were putting any effort into what they were doing in trying to help me."

However, graduates were more likely to blame themselves for leaving school. R., age 20, said,"The biggest turn-off was that it was too slow and every year we'd go to school, we'd study things at the beginning of each year that we had already gone over three or four times in previous school years . . . I did lose my interest specifically out of boredom and I regret it now."

Some said that school did not seem important or relevant at that time in their lives.

Intangible outcomes of earning the GED, such as changes in self-image, appeared to be linked to school-related reasons for leaving high school. Graduates who were critical of school or who left school due to boredom all experienced relatively few intangible benefits. While they did describe occupational

advancement and participation in further education or training, they were less likely to report improved self-concept and other more affective changes. Lack of change in these areas seemed due to the ability of these graduates to preserve or regain self-esteem despite their negative experiences in school. In contrast, graduates who blamed their own lack of ability or motivation for leaving school were more likely to report a new sense of self-worth from earning the GED credential. These outcomes are discussed in more detail in the later section on changes in self-concept.

"I always wanted to get a diploma but things were tough": Factors affecting Participation in the GED Program

Most GED graduates expressed a lifelong desire to overcome the stigma of being a high school dropout and to gain access to the opportunities that they perceived the credential would offer. However, many of them began working and raising families soon or immediately after leaving school. These adult responsibilities left little time or energy for completing their high school education. As R., age 38, said, "I always wanted to get a diploma, but things were tough for many, many years...You need money, you got kids so you wait til they grow up and then you go back. It is a little late but that is the way it works out." Also, although it was rarely stated directly by graduates, it was evident particularly for older graduates that the credential was not really necessary at earlier times in their lives. Many found adequate jobs, were able to support themselves and their families, felt competent as parents, and took on active roles in community groups without completing the degree.

For some, a mystique was associated with the GED that kept them from attempting to take the test earlier in their lives. Some did not know anyone else who had taken the GED. The anticipated difficulty of the test, combined with negative beliefs about their academic abilities, had been strong former deterrents for some graduates. Others had taken all or part of the test earlier, and failed. Typically it took years before these individuals attempted the test a second time.

The majority of graduates could identify some kind of preceding life change that led to their decision to attempt the GED test. Sometimes the change led to an increased need for a high school credential. This change could be work-related: getting laid off from a job or experiencing a work-related disability created a need for the diploma to qualify for a new job or retraining. The change could also be family-related. S., age 32, described the day that her daughter entered kindergarten as when she decided to obtain her GED: "I couldn't see myself looking down the road telling her to finish school when I hadn't." Other women said that becoming pregnant was a key factor: M., age 21, observed "I was pregnant and I decided that if my child at the time was to have a better life I'd need an education." Some took the GED to meet requirements imposed by the military, other employers, social service providers, or educational institutions. In other cases, the life change did not create a greater need for the diploma but rather offered greater opportunities to study or take the test. For example, R. described the opening of a GED preparation program in her hometown as the key factor that prompted her participation.

Some graduates, however, could not identify any particular preceding life change or event that prompted their decision to take the GED. These individuals typically were <u>anticipating</u> a change in their lives, and perceived a high school diploma as necessary to make that change. Some attributed their decision to a new maturity achieved in the years since high school. M., age 23, explained: "I saw myself moving onward. You know, as you get older you mature and you reason with yourself a little bit differently. I was at that stage at that time." Others expressed a growing sense of frustration or stagnation in their current life situation: "I just got tired of factory work and stuff." Many had decided that going to college would be part of making such a change, and therefore wanted the GED to enable them to enroll in a college program.

The factors affecting graduates' decisions to take the GED test were not good indicators of the kinds of outcomes they experienced. There were no clear patterns in relation to the

identified life changes and graduates' reports of different benefits. What seemed to be most important was how graduates responded to these changes, in terms of the goals they established for themselves. Also important was the extent to which life changes created opportunities or barriers to the pursuit of additional goals. These factors are discussed in the following sections.

Graduates' Goals: Going to college and getting a better job

The GED is not an end in itself for most graduates. For many graduates, earning the GED represents one step in a longer process of education and life change. As the survey findings indicated, the majority of GED candidates have educational or career-related reasons for earning the GED credential. The interviews indicated that these two goals, far from being discrete, were more often intertwined. Graduates planned to pursue further education almost exclusively to prepare for a new career or to advance in their current occupation. Most saw the GED as only a first step: "I don't believe that a high school diploma by itself nowadays is going to get you anywhere, you can't do much with it," said G., who had completed two semesters of a college degree program by the time of the interview. Not only was the GED perceived as necessary to meet college entrance requirements, it was also seen as a means of testing one's ability to succeed in further education. As G. commented, "I wasn't too sure if I had the capability of continuing my education and fulfilling my ambitions, but I thought okay, this is where I have to start."

While some graduates did talk about the need for the GED itself to qualify for a job or a job promotion, they often described the desire to go on for additional education or training in the future. Reflected in many graduates' comments as well as in their interest in further education was the desire to have a career instead of a "job."

The clarity of GED graduates' educational and employment goals was varied. Some named very specific educational programs and occupations that they had planned to pursue after earning the GED credential. Others only knew that they wanted to move beyond

unfulfilling life situations or inadequate employment, and that a high school credential would make it possible for them to do so. The immediacy of further educational and career goals was also varied. Some saw the GED as "security" for the future, for example if they lost their present job or decided to make a job change later in life. Specificity and immediacy of goals were related to extent of their goal attainment. Those graduates who had specific, immediate plans tended to be those who had actually begun educational programs or changed jobs. This may be partly due to the relatively short time lapse between the interviews and GED graduation, which allowed little time for clarification of goals. However, the potential value of career counseling for some graduates seems clear. It was evident that some graduates did not begin to clarify further goals until after they had been successful in earning the credential. Provision of more extensive educational and career guidance for graduates (as well as for candidates) might help meet the needs of these individuals.

Rarely did graduates describe an interest in further education for the sake of the education itself, just as rarely did they indicate that their initial interest in earning the GED was to acquire skills or knowledge that they didn't acquire in high school. Typically those who did not have educational and career goals wanted the GED for "my own satisfaction," a satisfaction that was linked to the desire, in one graduate's words, "to prove to myself that I could do it." Graduates also expressed a desire to prove to others, such as their children, that they were capable of earning the credential. S., age 31, said, "I wanted to do it for myself and my kids. They wondered why I never finished or why I didn't go back [to complete school]." For these graduates, having the diploma was sufficient; their life situation did not call for further change. R., age 53, who had been employed in the same job for 18 years, in addition to raising two children, observed that "Basically, what I took it for was for my own satisfaction. I have worked at the same place all these years and I mean at my age and as many years as I have been there I don't plan on changing in the

middle of the stream . . . I've always been kind of embarrassed that I never finished high school you know and sorry that I never finished."

Whether or not graduates planned to pursue further goals, their comments indicated that they perceived the primary value of the GED to lie in the credential itself. Earning the credential offered proof not only of their academic abilities, but also of other qualities: their motivation, persistance, maturity, general intelligence. Some described the GED as a "hurdle" that they had to pass on the way to other goals. Many faced other hurdles as they pursued these goals.

"If you want it bad enough, you're going to have to work for it:" Factors Affecting Goal Attainment

For many graduates, earning the GED "opened the door" to new opportunities, particularly related to employment and education. However, an open door does not guarantee success in gaining entrance and succeeding in new jobs, educational programs, or other situations. Graduates were able to identify a variety of factors that made it difficult or prevented them from achieving their goals after earning the GED credential. These factors are described briefly below. It should be noted that, by their nature, the self-reported factors provide insight into the attainment of anticipated benefits only, so they are mostly linked to educational or employment-related outcomes. Outcomes such as change in self-concept, life satisfaction, or community involvement were less commonly specified as goals; thus explicit "barriers" to their attainment were not identified from the perspective of the GED graduate. Some factors affecting these outcomes will be identified in later sections.

Family Responsibilities. Two kinds of family responsibilities were described by interviewees as factors that conflicted with the attainment of their goals. The first kind were specific problems or crises that arose unexpectedly, such as the illness of a relative or the sexual molestation of a child. These crises required time, emotional and financial resources that were therefore unavailable

for further education or career transitions. The second kind of responsibility was expressed by some mothers of young children. These women described the need to be primary caregiver for their children and a sense of responsibility to be a "good mother" as reasons for postponing their own educational or career goals. As R., age 21, stated, "I don't want [my daughter] to grow up thinking of someone else as mom." Clearly, graduates' pursuit of individual goals must be understood in the context of family needs and roles. The priority of family responsibilities also emerged as an important element of other factors described below.

Financial Constraints. Two kinds of financial constraints affected graduates's abilities to achive their goals. First, some graduates indicated that the cost of enrolling in educational programs, such as tuition fees, was preventing them from pursuing their goals. In contrast, others felt that participating in educational programs would require that they give up or reduce employment, which currently was necessary to support themselves and their families.

Lack of Opportunities. For some graduates, lack of job opportunities or relevant educational programs were preventing the attainment of their desired goals. Relocation was sometimes mentioned but considered undesirable for reasons such as the need to accomodate a spouse's job or to keep children in school.

Illness/Disability. A few graduates experienced an illness or disability that prevented them from seeking better employment or pursuing further education.

Age. Some older graduates described factors related to age that affected their pursuit of other goals. One was the need to preserve accumulated benefits on the job; as L., age 53, says: "I wouldn't [switch jobs] because they have a retirement plan where I work and I've got so many years built up it's kind of hard to change over at my age. If I were a younger person I wouldn't think twice I'd go if I wanted to. When you get a certain age it is hard to change in the middle of the stream." Another age-related barrier was linked to a limited sense of time to accomplish goals. S., age

49, stated that a four year university program was "too long for me to study" because "I'm not so young."

Reassessment of Goals. Some graduates actually attended college or vocational training programs and discovered that the classes did not meet their expectations. This led to a reconsideration of their initial career goals and a decision to adopt different goals. Others tried new jobs and decided that they wanted different kinds of working conditions or responsibilities.

Academic Difficulty. Some graduates who enrolled in educational programs after obtaining the GED mentioned some difficulty with their coursework, primarily in the first semester of a college program. The difficulty was more often attributed to a need to develop or regain good study habits rather than to inadequate basic skills.

English Proficiency. Limited English proficiency was a problem for some graduates for whom English was a second language. S., a Hispanic woman, who had passed the Spanish version of the GED test, described difficulty in obtaining the employment she desired as a secretary because of her still imperfect oral English language skills. P., a Laotian man who enrolled in an associate degree program after earning his GED credential, discussed his need to take remedial coursework to improve his writing skills. In the interview, it was apparent that his ability to use and understand spoken English also was limited.

Several key ideas emerged from the graduates' discussion of these factors. First, while it may seem obvious, it should be stressed that the life situation of GED graduates typically is not comparable to the middle-class adolescent high school graduate. Many factors that prevented the pursuit of educational or employment goals were related to individuals' adult roles and life situation. For example, a key difference between women who had enrolled in further education and those who didn't was the age of their children; those with young children were more likely to postpone further education or have a need for immediate employment. Men tended to be more constrained by financial considerations, such

as the need to find or keep a full-time job rather than pursue education.

The interviews do not provide an assessment of whether graduates' level of basic skills are interfering with academic or job-related achievement. However, the difficulties experienced by some graduates in further education do appear to be due to more than basic skills, but rather to overall management of coursework. These problems were intensified by years away from formal education, and competing demands from family and work. These problems suggest the need for some form of assistance for graduates who make the transition to further study; however, more than study skills courses seem necessary. Setting realistic expectations for themselves appeared to be a critical factor for those graduates who felt they were successful in their academic programs. M., a Hispanic woman, age 23, thought she had trouble during her first semester of a college program because "I'm too hard on myself. You push yourself too hard, you push yourself down. I sort of pushed myself in a corner. It was very new and I felt very foreign to it all."

The particular problems experienced by nonnative English speakers warrent further investigation. While the numbers in this study were much too small for generalizations, it seems apparent that earning the GED does not ensure that nonnative English speakers have the necessary communication skills to meet expectations of either employers or educational programs.

In addition to life situation and skills, graduates' achievement of goals must also be understood as dependent on their own process of decision-making, self-assessment, establishment of priorities and consideration of alternatives, within a limited range of possibilities. For example, only about half of the graduates who were interviewed identified any kind of difficulty related to achieving their desired goals. These were not necessarily those graduates who experienced relatively few benefits from obtaining the GED. Some graduates who had obtained many benefits identified a variety of difficulties in achieving their

goals, but felt that they had been successful in handling these difficulties. In contrast, some graduates who described few changes did not perceive any barriers to attainment of their goals or more extensive benefits. They may have achieved a specific goal such as obtaining a new job or entering an educational program; other potential outcomes simply were not relevant or important given their life situations or initial self-concept.

Further, some "barriers" were actually intentional decisions to postpone the attainment of goals; for example, L.'s desire to be a good mother for her children. Other "barriers" were changes in goals, based on actual participation in an educational program or a new job. These graduates did not consider themselves unsuccessful, but rather as making more informed decisions about their choice of employment or education, based on new experience and situations.

These findings suggest the importance of considering graduates' perspectives when assessing outcomes of the GED program. Graduates see themselves as intentional decision-makers, who choose to pursue goals in light of multiple life demands and needs. For the most part, they also assume individual responsibility for their success or failure to achieve those goals. What is lacking from many of their perspectives is an awareness or challenge of the societal and institutional structures and values that continue to place constraints on their opportunities. The women, for example, did not question their responsibility as primary caregivers for their children or the lack of adequate childcare provision that restricted their participation in further education. The ability to confront and change such situations may be as essential as academic skills to graduates' pursuit of further goals.

"I believe in myself a little bit more": Changes in Self-Concept

Regardless of their initial goals, the majority of graduates reported a variety of intangible benefits from obtaining the GED credential. This finding is consistent with other GED follow-up studies as well as studies of the impact of adult basic education programs. The survey results and factor analysis provide a more

diverse categorization of intangible benefits than described in other research, including not only improved self-image, but also life satisfaction; better relationships with others, and higher aspirations. Graduates' comments in the interviews provided some additional insight into the nature of these outcomes.

An outcome of earning the credential for many graduates was a change in their perception of their skills and abilities. As M. stated, "it's proven to me that I can do it, that I have a lot more knowledge than I really realized I did have. Whether it comes from age or experience or whatever, it doesn't matter, it's the idea that I was able to put it down and be judged that way." For some, the evidence that they were not too old to learn was an additional positive factor. M., age 39, said, "It has been a boosting of my self-esteem, giving me the knowledge that I can do certain things and that I'm not too old to do it. I can go back and still learn different things." Not only did earning the GED confirm graduates' academic abilities, it also increased some graduates' general sense of personal efficacy, or power. S.'s remarks are similar to those of many others: "Once I did that [earned the GED], it has been clear sailing. I do whatever I want to do. If I set my mind to do something, I do it and nobody stops me." Even some graduates who had previously felt relatively positive about their academic abilities found the validation to be rewarding: "it is like confirming what you are thinking about yourself. You feel more comfortable with what you are thinking of yourself," said R.

Graduates also described the sense of new potential that they derived from having the diploma. This was related both to the belief that the credential would "open the door" to new job opportunities and educational possibilities, as well as to another kind of change in their images of themselves. Not only did earning the GED confirm their academic abilities, it offered proof for some graduates that they had the necessary motivation and determination to succeed in other endeavors. Sometimes they felt that this had a positive impact on how others perceived them, as well. T., age 37, who had enrolled in a vocational diploma program after earning the

GED, said "I can say people look at me different. I am talking to someone and they look at me as if I'm not just sitting around doing nothin. If I'm talking and I'm telling them I'm in school, their whole attitude changes. To me that's what it seems like, they seem like they are looking at me like I'm somebody who is out looking to do something for myself and my kids. At first, they were looking at me as a person just sitting around waiting for people to hand me stuff."

Others focused more on the sense of pride or accomplishment that they derived from earning the credential. In this case, the positive feelings were due more to the fact that they had done something difficult rather than a fundamental change in their self-perceptions. As one graduate said, "anytime you accomplish something you feel better about yourself." Graduates described many ways in which these feelings had a positive impact on their lives. Some attributed more success in job interviews and on the job to a greater sense of confidence. Others described how their enhanced self-respect improved their relationships with family and other people. The value that many graduates placed on changes in their self-confidence was significant.

However, despite the prevalence of these feelings, there were a number of graduates who did not feel that earning the GED had any major impact on their self-image, aspirations, or life satisfaction. These graduates typically indicated that they had positive beliefs about themselves and their abilities prior to earning the GED. Some individuals had relatively positive feelings about their academic skills based on their performance when they were in high school. As described earlier, GED graduates did not complete high school for a variety of reasons, many that were not related to academic difficulties. M.'s perspective reflects that of others: "The reason I didn't graduate from high school was simply more personal things than educational things. So those things like, "do you have a better interest in learning," I've always had an interest in learning . . . I've always been bright. If I set my mind to anything it can be figured out and done." These graduates

were also apt to have found the GED test to be relatively easy, confirming their academic strengths rather than changing their self-perceptions. Since the test did not appear difficult to them, their sense of accomplishment typically also was less than other graduates.

Other individuals had maintained a general sense of self-esteem through their success in employment or other areas of life. For J., who was employed in construction, dropping out of high school had not been a source of low self-esteem; nor did he feel that it affected other people's attitudes towards him: "It was kind of hard [for other people] to tell me that I'm dumb or something because I don't have a diploma, when they're working for $5 an hour with a diploma and I was working for $16 an hour without one." Fingeret (1991), citing Sanford and Donovan (1984) along with Foster (1989), makes a useful distinction between self-esteem and self-concept. Self-concept is "someone's overall set of beliefs and images about her or himself. Self-esteem has to do with the value placed on those images. It can be negative in relation to some images and positive in relation to others, contributing to an overall negative or positive judgement of oneself." (p. 222). As Fingeret points out, the extent that adults' self-esteem in relation to schooling affects their general self-esteem will vary among individuals. Some individuals actively resisted the stigma of being a high school dropout to maintain a positive sense of self-worth. This resistance was reflected in several graduates' distinction between themselves and other dropouts; "I am not your typical GED graduate" was a comment made by more than one person.

Beder (1991) argues that the assumption that low-literate adults universally suffer from poor self-concept and low self-esteem is pervasive yet inaccurate. The same assumption is often made about high school dropouts; results of outcome studies, in which high proportions of graduates report increased self-confidence or self-esteem, are typically used to support this belief. While the same might be done with the results of the survey in this study, the interviews indicated the misleading nature of

such an interpretation. First, some graduates who indicated changes in self-concept did not necessarily have "poor" self-esteem prior to obtaining the GED. Even people with quite adequate self-concepts can experience a "boost" when they have a new accomplishment, which is what a number of graduates described. Second, it is important to recognize that graduates who do not experience changes in self-esteem may simply have had high self-esteem originally.

The practical concern suggested by these findings is not how to devise additional strategies to help more individuals experience changes in self-concept; they may be quite adequate to begin with. Further, the lack of relationship between changes in self-concept and educational or occupational outcomes demonstrates that individuals who did not report improved self-esteem were just as likely to experience other benefits from obtaining the GED credential. In fact, a more pressing issue may be ensuring that GED preparation and testing programs do not perpetuate a "deficit" model of potential participants, thereby discouraging the participation of adults who rightfully resist such negative images.

An additional issue is suggested by the nature of the self-concept changes that <u>were</u> experienced by graduates. The ultimate benefit of these changes may be minimal unless graduates also begin to understand how their general self-concepts and beliefs about themselves as learners have been shaped by societal factors, such as the stigma associated with high school drop-out. As Fingeret (1991) discusses in relation to adult literacy students, the ultimate level of change in self-concept occurs "when adults begin to transform the underlying basis on which judgements of esteem are calculated. This would involve students moving from self-blame to an analysis that includes examination of the social structures that contributed to students' difficulties with schooling during their childhoods." (p. 223). The critical awareness developed through this kind of analysis may be particularly important for the large proportion of graduates who intend to pursue further education.

<u>"I'm a pretty busy person:" Community Involvement</u>

While the past and present emphasis in GED outcome studies has

been on benefits related to employment, education, and self-esteem, enhancing adults' participation in community affairs is usually considered to be an additional goal of adult basic education/high school completion programs. The Federal Adult Basic Education Act, for example, specifies that the federal ABE program should make adults more "responsible citizens." This goal of responsible citizenship is also reflected in the content of the GED test, and in Wisconsin, the addition of a civics test to the HSED. This is not only a goal imposed by the government and educators; research indicates that the goals of some adult basic education students include becoming more active in church and community groups, and learning more about the government (Beder & Valentine, 1990).

The survey results indicated that some graduates do perceive their community involvement and political awareness to have changed as a result of preparing for and earning the GED. However, on the whole, increased community involvement was less frequently reported as an outcome in relation to other changes. Changes in community involvement were also not widely described by graduates in the interviews. Most often, graduates described an increased ability to understand and evaluate political issues, which was a result of their preparation for the GED test.

One notable finding from the interviews was the great diversity in the extent that graduates were involved in community groups prior to as well as after earning the GED credential. Some graduates were active in church groups, volunteer organizations, PTA programs, and other organizations long before they entered the GED program. Once again, the "deficiency" assumption, in this case that adults who have not completed high school are generally socially isolated or alienated was clearly challenged by the activities described by these individuals. In fact, some indicated that as a result of earning the GED they had reduced their participation in community groups. Such graduates had typically enrolled in further education programs or obtained employment that limited the time they had available for other activities. Other graduates did report little or no involvement before or after

earning their GED. Some also described long working hours and extensive family responsibilities that took priority over an interest in community activities. The extent that greater community involvement was feasible for them seems questionable.

Finally, the comments of many graduates suggested that they perceived their GED experience to be largely irrelevant or peripherally related to their interest in politics or community groups. These comments perhaps simply reflect the lack of real emphasis in the GED program on such ends. For more insight into this outcome, rather than examining the lives of graduates, a more fruitful object of investigation may be the GED program itself, and the extent that it provides meaningful opportunities for participants to enhance their involvement in arenas beyond school and work.

Summary

GED graduates are a diverse group of individuals. Many are actively involved in multiple adult roles, in the workplace, family, and community. They have diverse goals, that differ in their nature, specificity, and immediacy. Many are in the midst of long-range life changes that go beyond earning the GED. Graduates also have different levels of self-confidence and self-esteem in relation to their academic abilities and in general. Their feelings of self-esteem are linked to their experiences of success or failure in school, but are also related to their success in other areas of life. In addition, their self-esteem is affected by the extent that they attribute previous difficulties in school to their own skills or initiative, or to problems in the quality of instruction or the school system.

All of these factors - graduates' adult roles and responsibilities, their goals, their initial self-concept, linked to their previous schooling experiences - have an impact on the outcomes they experience from earning the GED credential. They appear to experience more extensive benefits to the extent that their life situations permit the pursuit of clear and immediate educational and occupational goals; also important is the extent

that such goals are relevant to their needs. Their changes in self-esteem are dependent on their initial self-concept; if they have felt a sense of failure or stigma from not completing high school, they are more likely to experience a change in their images of themselves and their general life satisfaction. While basic skills are certainly important to these graduates' success in further activities, educators must also consider how the total range of an individuals' past and present life situation will affect their accomplishments.

Chapter 4

CONCLUSIONS AND IMPLICATIONS

Conclusions

In this chapter, some broad conclusions about Wisconsin GED graduates and the Wisconsin GED program are drawn from the data collected in this study. The initial section describes conclusions based on characteristics of the graduates. The following sections include conclusions corresponding to the three research questions that guided this study:

1. What are the occupational, educational, personal and social benefits of obtaining the GED credential for Wisconsin GED recipients?
2. How do Wisconsin GED recipients vary in the benefits that they experience?
3. What are the personal, social and situational factors that affect the nature and extent of these benefits?

Following the conclusions, implications and recommendations are discussed.

Characteristics of 1989 GED Graduates

1. GED graduates tend to be young and to have completed a substantial portion of high school. Data on the entire group of 1989 GED graduates indicated that their average age was less than 30 years old, and that almost half had completed the 11th grade. A higher proportion of minorities are represented among graduates than among the general Wisconsin adult population, but it is not clear whether this proportion adequately reflects the proportion of minorities among adults with less than a high school education. Employment data was only obtained for survey respondents; based on that information, a substantial number of graduates are employed at the time of GED testing. These figures are not greatly different from national statistics on GED graduates for the same year. While comparable data on Wisconsin adults with less than a high school credential are not yet available from the 1990 census, it appears that the GED program primarily serves the more educationally and economically advantaged among the target population. This

observation is further substantiated by the short length of preparation reported by most survey respondents. There is some evidence to suggest that the new Wisconsin passing requirements decreased the completion rates of individuals with lower levels of previous educational attainment. The average level of Wisconsin graduates' previous educational attainment in 1989 was 10.1 years, as compared to 9.3 in 1988; and 10.2 in 1990 (GED Testing Service, 1988; 1989; 1990). In comparison, the national average for 1989 was 10.0, 9.9 years for 1988 and 9.9 for 1990. Thus, while higher since 1989, the educational levels of Wisconsin graduates are not greatly different from other GED graduates in the USA.

2. GED graduates have varied reasons for earning the credential, with immediate employment a priority for a relatively small proportion of individuals. Overall data on 1989 graduates revealed that participation in further education was the primary goal for the largest proportion of graduates, more than twice the number who indicated employment-related reasons for taking the test. Thus, while some GED candidates may have a need for improved skills to succeed in immediate employment changes, many graduates have plans to pursue further education as a means of long-range career advancement. Therefore they may have a more pressing need for counseling and skills necessary to success in college or other educational programs.

It should also be noted that personal satisfaction was the primary goal for a substantial number, one-third of the graduates. Unlike high school students, many adults do not perceive the GED as primarily necessary for either future educational or employment-related goals. These adults, many of whom are successful in other areas of their lives, are attempting to overcome the stigma associated with high school dropout and gain an enhanced sense of self-worth in regard to their educational accomplishments.

Benefits of Obtaining the GED Credential

1. A great variety of benefits are experienced by GED graduates. These benefits, though diverse, can be grouped into major types, or factors, of benefit. Tangible benefit factors

include Occupational Advancement, Further Education, Vocational Training, and GED Participation of Others. Intangible benefits included Life Satisfaction, Enhanced Parental Role, Better Relationships with Others, Financial Security, Improved Self-Image, Higher Aspirations, and Greater Community Involvement.

2. Intangible benefits are those most widely reported by graduates. These include Life Satisfaction, Higher Aspirations, and Improved Self-Image. Among the specific outcomes reported most frequently by graduates were more positive attitudes towards education and higher educational goals. Other frequently reported outcomes were enhanced feelings of success and happiness. Better Relationships with others was also an outcome for a considerable proportion of graduates.

3. Occupational Advancement and Financial Security were outcomes for a smaller, but still significant proportion of graduates. In addition to job-related benefits directly reported by graduates, employment status data indicates a significant increase in the graduates' employment rates after earning the GED, from 59% in Fall 1989 to 66% in Spring 1991. Further, the numbers of individuals who were unemployed and not looking for work decreased considerably, from 23.6% to 16.7%.

4. Participation in further education and training were reported by a sizeable proportion of graduates. Graduates' rate of participation in education is particularly notable when their motivations for earning the GED and relatively short length of time since earning the diploma are taken into account. Almost half of those with further education as primary goal enrolled in college degree program within two years following GED graduation.

5. Greater Community Involvement is a benefit for the smallest proportion of GED graduates. A purpose of adult basic education and high school completion programs has been to promote more informed and active involvement in the community and the political process. The HSED civics test is an example of a strategy designed to accomplish this purpose. This kind of outcome was least commonly reported by graduates.

6. There were few relationships between tangible benefits, such as Occupational Advancement, and intangible benefits, such as Improved Self-Image. This finding does not indicate that positive changes in self-image, for example, did not enhance some graduates' success in obtaining new jobs or entering further education. On the contrary, in the interviews, many graduates described the positive impact of improved self-confidence and enhanced self-esteem on other aspects of their lives. However, other graduates who did not experience changes in self-concept were no less likely to participate in further education or experience occupational advancement than those who did report such changes.

Differences in Benefits reported by Respondents

1. Age is the demographic characteristic with a relationship to the largest number of benefits. Younger adults were more likely to report educational and occupational benefits, as well as higher aspirations. Older adults were more likely to report benefits related to their roles as parents and community members. They also reported more positive changes in terms of improved self-image. These differences appear to be logically related to differences in life situations of adults at various stages of life. On the whole, however, the relationships between age and outcomes were relatively small, suggesting the impact of other factors on outcomes.

2. GED test scores had few relationships to benefits reported by graduates. The most meaningful relationships were participation in college degree programs and higher scores on the math and English tests. Higher skill levels, as represented by higher GED test scores, appear to have no relationship to other potential outcomes of earning the GED.

3. Preparation for testing has a relationship to benefits. Participants in GED classes or a learning center program differed from nonparticipants in some of the benefits they experienced. This may be partly due to differences between the initial characteristics of participants and nonparticipants, as much as to the impact of formal preparation, particularly because there was no relationship between length of preparation and benefits. However,

it does appear that participation in formal programs may promote graduates' participation in vocational diploma programs, enhance their ability to assist children with school, and have a positive impact on their self-image.

4. The benefits reported by HSED graduates were similar to benefits reported by GED graduates. For this group of graduates, the new credential had little impact on the outcomes they experienced.

Factors that Affect Reported Benefits

1. GED graduates have a variety of adult roles and responsibilities that affect the benefits they experience from obtaining the GED credential. These roles and responsibilities potentially interfere with their pursuit of goals such as further education or employment. Just as importantly, they also indicate the different needs that GED graduates might experience, and therefore, the goals they wish to attain.

2. The nature of GED graduates' goals will affect the benefits they receive from earning the credential. Graduates differ not only in whether their goals are primarily educational, employment-related, or more personal. Their goals also vary in their specificity and immediacy. The interview findings suggest that graduates with clearer and more immediate goals were more likely to have achieved them in the time span of this study.

3. GED graduates' changes in self-esteem are related to their previous schooling experiences and their initial self-concept. High school dropouts do not all suffer from low self-esteem. Graduates who did not report changes in self-image or related intangible benefits typically indicated that they had positive images of themselves and their abilities prior to earning the credential.

Summary

While the conclusions above consist of broad generalizations about GED graduates and their experiences, it seems appropriate to summarize by once again noting the great diversity that exists among GED graduates. Part of that diversity is linked to the broad range in age and life situation of graduates, that contributes to

different needs as well as different opportunities and barriers to achieving goals. Another important aspect of that diversity is in the graduates' perceptions of themselves and their goals. An appreciation of this diversity is important for understanding the benefits that graduates experience as a result of obtaining the GED. Clearly the GED has a positive impact on people's lives in a number of different ways; the nature of that impact also varies tremendously. To enhance that impact, strategies are needed that accomodate the diversity of graduates' life situations and their goals.

RECOMMENDATIONS

The findings of this study indicate that the current Wisconsin GED program is having a positive impact on graduates' lives in a variety of ways. However, certain issues were raised that suggest potential areas for program change and improvement. Recommendations for such changes are grouped into following categories: (1) high school completion program alternatives; (2) provision of support services; (3) collaboration with educational providers; and (4) ongoing program evaluation and follow-up.

High School Completion Program Alternatives

1. HSED/GED options. As revealed in the interviews and survey data, an important benefit of earning the GED credential for many adults is overcoming the stigma associated with high school drop-out. The creation of a "two-tier" high school credentialling program threatens to perpetuate a sense of deficiency among GED graduates, rather than offer meaningful alternatives suited to different needs. The high proportion of individuals who completed the HSED option in its first year of existence may be suggestive of graduates' desire to avoid further stigma in regard to their educational accomplishments. Graduates need a basic credential that is understood and valued both within Wisconsin and outside the state. As part of a nationally recognized credentialling program, it seems logical that the GED test should remain a respected option for Wisconsin adults who seek to earn a high school credential. Recommendation: A hierarchy of high school completion options

should be eliminated, in favor of alternatives that meet different needs, yet retain equitable status as high school equivalency diplomas. One such alternative is identified below.

2. External High School Diploma Option. One alternative to the GED credential is the National External High School Diploma program, now under revision and management by the American Council on Education. This diploma program is based on the assessment of an individual's skills and knowledge in the context of realistic life tasks. This approach permits adults to demonstrate competencies developed through life experience as well as to acquire new skills through individualized study. The study findings indicated that many adult high school drop-outs have been active in a variety of work, home and community endeavors. Such a diploma option might further reduce the stigma of high school drop-out by validating skills that adults have acquired through these endeavors. In addition, such an option might increase benefits such as Greater Community Involvement, since the development of skills relevant to such areas are directly addressed. This program is currently being utilized or developed in only a few locations in Wisconsin. Recommendation: The External High School Diploma Program or other alternative programs should be considered for adoption as adult high school completion programs throughout the state.

3. Assessment of Occupational Skills. The recent concern in Wisconsin over whether the GED credential indicates possession of skills necessary for success in employment is an issue receiving national attention. Wisconsin GED graduates in this study do appear to be successful in acquiring new jobs and do report better job performance. However, no conclusive data was obtained in this study regarding GED graduates' actual ability to meet skill demands in the workplace. Such data is also lacking on a national level. A recent report for the GED Testing Service (Webb, 1991), while supporting the GED's utility as an assessment of basic skills, does identify work-related skills that are not assessed by the tests. However, the report also points out that there are no standards that ensure that a high school graduate has such skills.

Difficulties in establishing such standards are the great variation that might exist in the skill demands of different jobs, and the lack of direct equivalence between academic skills and many occupationally-related skills. The report includes suggestions that the GED Testing Service and employers identify the skills needed for effective job performance and develop alternative assessments for different occupations. In addition, the small proportion of graduates with immediate employment-related goals identified in this study suggest that the GED program should not be perceived as primarily a means of validating occupational skills. Recommendation: Wisconsin educational policy-makers should encourage the development of occupation-specific basic skills assessments for use by individual employers. Such assessments may be used to determine the potential job-related success of GED graduates as well as high school graduates.

Provision of Support Services

1. Educational Counseling. The large number of GED candidates who indicate a desire to pursue further education suggests the need for educational counseling, in addition to the career counseling currently provided to candidates. In addition to clarifying program options, such counseling could assist candidates in developing a realistic assessment of the time and resources potentially involved in further study. Recommendation: Both educational counseling and career counseling should be offered to all GED candidates.

2. Counseling for GED Graduates. The study findings indicated that some graduates do not begin to make concrete goals for educational or employment-related changes until after they have successfully completed the GED. The provision of counseling opportunities for graduates (as well as candidates) may be most effective in assisting these individuals.

Recommendation: Counseling should be offered to GED graduates, possibly at the time they are notified of their successful completion of the credential.

3. Non-Mandatory Participation. A substantial number of GED graduates in this study indicated personal reasons for obtaining

the GED credential. Optional participation in counseling would permit these adults without educational or employment needs to avoid spending time and energy in irrelevant activities. This would also potentially increase the staff time and resources available to adults who actually need such counseling and support. Recommendation: Participation in either career or educational counseling should be optional, based on the decision of the candidates themselves.

4. Counseling for Adults with Special Language Needs. Based on findings from the interviews, it appears that adults who pass the Spanish version of the GED and other graduates who have learned English as a second language may need additional assistance in improving their language skills to be successful in further education and employment. In addition, they may need special help in identifying appropriate employment. Recommendation: Educational and career counseling should be provided specifically for immigrants and second language learners.

Collaboration with Educational Providers

1. Academic Support. Graduates reported some difficulties adjusting to the demands of college and vocational degree programs, primarily during their first semester of study. These difficulties frequently were related to conflicting responsibilities and their need to learn or relearn academic learning strategies, as well as apparent lack of support within educational programs. GED program personnel need to work more closely with educational providers such as the vocational/technical college and university systems to ensure that needs of returning adult students are recognized and addressed. Current VTAE support programs such as GOAL may need to be supplemented to become a more integral and accessible part of the college program for such adults. Recommendations: (a) The extent that GED graduates are aware of and utilize current academic support programs should be systematically investigated, possibly as part of the regular follow-up suggested below. (b) A structured college re-entry program for GED graduates should be considered as one possible way to provide better support. This might include

study skills enhancement as well as advocacy skills and peer counseling. This program could be offered in conjunction with the VTAE GED instructional program or by other GED preparation programs.

2. Provision of Other Support. Other kinds of support, such as financial aid and childcare, are necessary for graduates' success in further education. Based on the interview findings, it appears that this support may be inadequate, and also that graduates may not be fully informed of the support available. While securing resources or providing such support is beyond the scope of the current GED program, efforts may be made to encourage such provision by educational providers. Recommendations: (a) Information about financial aid and childcare options should be provided to candidates and graduates as part of the educational counseling option. (b) GED program personnel should make direct recommendations to educational policy-makers and college administrators for the expansion of current support services.

Ongoing Program Evaluation and Follow-up

1. Data on GED Candidates. Currently records are kept on a state-wide level for GED graduates only. No centralized data base for GED candidates exists. This lack of data severely limits the extent that the effectiveness of the Wisconsin GED program can be evaluated. For example, it is impossible to determine the extent that noncompleters are ultimately successful in completing the test. Recommendation: The state must take a more active role in collecting and analyzing candidate data. This might be done with assistance of national GED testing office, which currently compiles such information on a national basis. This data can be used to develop stategies to promote success of potentially underserved groups.

2. Data on Nonprogram Participants. The GED program currently serves a limited number of adults without a high school diploma. The reports of graduates in this study as well as other research indicate a variety of reasons for nonparticipation in adult basic education and high school completion programs. While some adults

may be successful without the credential, there are others whom might benefit yet do not or cannot participate. Of particular concern, given the demographic characteristics of current graduates, is the extent that the more economically and educationally disadvantaged adults in the Wisconsin population are effectively served by the program. Data is necessary to guide the development of strategies to meet the needs of such individuals. Recommendations: (a) Comparative data on Wisconsin adults with less than a high school education should be obtained and analyzed to ascertain first, extent of overall participation and secondly, if certain groups are not participating in equitable numbers. (b) This data should be used to guide a study of reasons for nonparticipation in the GED program. The results of this study may be used in combination with data on GED noncompleters to design appropriate program alternatives and modifications.

3. Regular Follow-up of Graduates. This study was the first state-wide follow-up study of GED graduates. Such studies should be conducted on a regular basis, either at the state level or within each district. Such studies are necessary to ensure that program continues to serve needs of graduates within rapidly changing context of local and state demographics and economy. Recommendation: A standard state-wide follow-up procedure should be designed and implemented throughout the state. Such follow-up might be conducted at approximately five-year intervals, to ensure that information remains accurate and to permit the assessment of long-range outcomes (see below).

4. Data on Long-Range Outcomes. The time frame of this study, as in most follow-up studies, permitted the assessment of short-term outcomes of GED graduation. To determine the ultimate success of graduates in such endeavors as completing degree programs or making long-range career changes, follow-up data must be compiled on a long-term basis. Recommendation: Long-range, longitudinal outcome data for GED graduates should be collected as part of standard follow-up procedures. For example, a sample of graduates could be re-surveyed periodically at the five year intervals noted

above, to monitor the outcomes they experience with increasing time.

Conclusion

GED graduates represent an important resource for Wisconsin. They are a group of adults with diverse experiences, goals, needs, and abilities, that are frequently unrecognized. The GED program should be seen as a "second chance" for society to offer these individuals a means to improve their own lives as well as to enhance their contribution to the well-being of the state. It is hoped that this report will provide some guidance for efforts to increase the already positive impact of the program on many adults' lives.

REFERENCES

Baldwin, J. (1990). GED candidates: A decade of change. GED Profiles: Adults in Transition, 1, 1-4.

Baldwin, J. (1991). Schooling, study, and academic goals: The education of GED candidates. GED Profiles: Adults in Transition, no. 2. Washington, D.C. : GED Testing Service of the American Council on Education.

Baldwin, J. & Spille, H. (1991). GED Candidates in the workforce: Employed and employable. GED Profiles: Adults in Transition, no. 3. Washington, D.C.: GED Testing Service of the American Council on Education.

Beder, H. (1991). The stigma of illiteracy. Adult Basic Education, 1(2), 67-78.

Behal, E.L. (1985). After the GED tests: Postsecondary enrollment patterns and perceptions of GED examinees (GED Testing Service Research Studies, No. 5). Washington DC: American Council on Education.

Bogdan, R.C. & Biklen, S.K. (1982). Qualitative research for education: An introduction to theory and methods. Boston: Allyn and Bacon.

Carbol, B.C. (1987). Alberta GED graduates: Program perceptions, benefits and test performance (GED Testing Service Research Brief No. 15). Washington DC: American Council on Education.

Cervero, R.M. & Peterson, N.L. (1982). After the GED tests: Employment and training activities of GED examinees. Washington, DC: American Council on Education. (ERIC #ED 272 754).

Fingeret, A. (1985). North Carolina Adult Basic Education Instructional Program Evaluation. Raleigh, NC: North Carolina State University.

Fingeret, H. & Danin, S. (1991). "They really put a hurtin' on my brain: Learning in literacy volunteers of New York City. Raleigh, NC: Literacy South.

Pawasarat, J. & Quinn, L. (1986). Research on the GED credential and its use in Wisconsin. Milwaukee, WI: University of Wisconsin-

Milwaukee Employment and Training Institute.

Rummel, R.J. (1970). Applied factor analysis. Evanston: Northwestern University Press.

Strauss, A. & Cohen, J. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications.

Thompson, H.G. & Jimmerson, R.M. (1986). A two-year follow-up study of GED recipients in Washington State. Adult Literacy and Basic Education, 10(1), 27-36.

Valentine, T. & Darkenwald, G.G. (1986). The benefits of GED graduation and a typology of graduates. Adult Education Quarterly, 37(1), 23-37.

Webb, L. (1991). Relationship of the GED tests to skills needed in the workplace. Washington, DC.: Pelavin Associates, Inc.

Whitney, D. (1986). Comments and suggestions concerning the studies "Equivalency certificates - - Report to the superintendent: Findings and recommendations and "Performance of GED holders enrolled at the University of Wisconsin's thirteen campuses 1979-1985." (Available from the GED Testing Service, American Council on Education, Washington, DC)

APPENDICES

A. Bibliography of Related Studies
B. Questionnaire
C. Interview Guide
D. Characteristics of Original Sample

APPENDIX A

Bibliography of GED Studies

Baldwin, J. (September 1990). GED candidates: A decade of change. GED Profiles: Adults in Transition, 1, 1-4.

Baldwin, J. (January 1991). Schooling, study, and academic goals: The education of GED candidates. GED Profiles: Adults in Transition, 2, 1-7.

Beder, H. (March 1989). Reasons for nonparticipation among Iowa adults who are eligible for ABE. (Funded under Section 310 of the Adult Education Act). (Jane B. Sellen, Project Director; John Hartwig, Project Manager)

Beder, H., & Valentine, T. (May 1987). Iowa's adult basic education students: Descriptive profiles based on motivations, cognitive ability, and sociodemographic variables. (Funded under Section 310 of the Adult Education Act). (Jane B. Sellen, Project Director; John Hartwig, Project Manager)

Beider, H. W., & Valentine, T. (Winter 1990). Motivational profiles of adult basic education students. Adult Education Quarterly, 40(2), 78-94.

Beltzer, S. (August 1985). Persistence of GED and traditional students at a public community college: A test of a conceptual model. American Council on Education GED Research Brief, 7, 1-3.

Carbol, B. C. (September 1987). Alberta GED candidates: Program perceptions, benefits and test performance. American Council on Education GED Research Brief, 15, 1-4.

Carson, B. W. (August 1986). Acceptance of general educational development (GED) in hiring policies of Denver area employers. American Council on Education GED Research Brief, (volume,issue,pages not listed)

Cervero, R. M., & Peterson, N. L. (November 1982). After the GED tests: Employment & training activities of GED examinees. (ERIC, ED 272754). (General Educational Development Training Service). Washington, D.C.: American Council on Education.

Colert, S. (December 1983). High school equivalency and high school diploma students at Brandon University: A comparison of academic success. American Council on Education GED Research Brief, 5, 1-3.

Diekhoff, G. M. (April 1988). An appraisal of adult literacy programs: Reading between the lines. Journal of Reading, 31(7), 624-630.

Glustrom, M. (April 1983). Educational needs and motivations of non high school graduate adults not participating in programs of adult basic education. Lifelong Learning: The Adult Years, 19-21.

Grise, P. J., & Klein, J. D. (September 1987). Comparing GED and traditional high school graduates in Florida's workforce. American Council on Education GED Research Brief, 13, 1-4.

Huang, J., Benavot, A., & Cervero, R. (1990). An analysis of structural factors associated with participation in state-funded adult basic education programs. AERC Proceedings. (pp. 113-118).
Examines effects of the broader social, political and economic context on participation in state-funded adult literacy programs. Using the state as the unit of analysis, it employs both a cross-sectional and longitudinal research design to determine the impact of state characteristics on aggregate adult education participation rates.

Klein, J. D., & Grise, P. J. (September 1987). GED and traditional high school diploma holders attending Florida's community colleges: A comparison of academic success. American Council on Education GED Research Brief, 12, 1-3.

Ladner, R. A. (July 1986). Educational and occupational activities of GED and conventional high school graduates in Florida. American Council on Education GED Research Brief, 8, 1-7.

Musgrove, W. J. (March 1981). How useful are the official practice GED tests and general educational performance index for predicting performance on the GED tests? American Council on Education GED Research Brief, 3, 1-2.

Passmore, D. L. Employment of Young GED Recipients. (Unpublished manuscript)

Pawasarat, J., & Quinn, L. M. (August 1986). Research on the GED credential and its use in Wisconsin. University of Wisconsin-Milwaukee: Employment & Training Institute, Div. of Outreach & Continuing Education. (Philip E. Lerman, Director; John Pawasarat, Lois M. Quinn, Project Coordinators; Dorothy E. Smith, Program Assistant)

Pawasarat, J., Reynolds, P., & Quinn, L. M. (February 1986). Performance of GED holders at Milwaukee Area Technical College 1978-1985. (Contact the Wisconsin Department of Instruction. Prepared by the University of Wisconsin Employment and Training Institute)

Pereira, C. (1986). A follow-up study of graduates of MiraCosta Adult High School Diploma Program 1982, 1983, 1984, 1985. (Eric, ED 270580). Prepared for the course Education 70s (A and B) Seminar, San Diego State University.

Quigley, B. A. (Spring 1991). Exception and reward: The history and social policy development of the GED in the U.S. and Canada. Adult Basic Education, 1(1), 27-43.

Quinn, L. (September 1985). Literature survey of the use of the GED to measure readiness for employment. (Working Draft). University of Wisconsin: Employment & Training Institute. (Philip E. Lerman, Co-Director; John Pawasarat, Lois Quinn, Project Coordinators; Dorothy E. Smith, Program Assistant)

Quinn, L., & Haberman, M. (Date not listed). Are GED certificate holders ready for postsecondary education? Metropolitan Education, 1(2), 72-72.

Sabino, M. J., & Seaman, D. F. (1988). Follow-up of GED completers: An analysis of eight studies in the U.S. and Canada. Lifelong Learning: An Omnibus of Practice and Research, 11(7), 4-6.

Soifer, R., & others. (1990). Reading and writing improvement and the GED connection. Chapters 2 & 3 in The complete theory-to-practice handbook of adult literacy. New York: Teachers College Press.

Stoker, H. W. (August 1986). Performance characteristics of Florida's early exit equivalency candidates. American Council on Education GED Research Brief, 9, 1-4.

Thompson, H. G., & Jimmerson, R. (1986). A two year follow-up study of GED recipients in Washington State. Adult Literacy and Basic Education, 10(1), 27-36.

Valentine, T., & Darkenwald, G. G. (Fall 1986). The benefits of GED graduation and a typology of graduates. Adult Education Quarterly, 37(1), 23-37.

Wallace, M. B. (April 1987). Adult education in Texas: A survey of GED candidates and Hispanic adult education students. (ERIC, ED 282053, Report #87-415). Washington, D.C.: American Council on Education.

Whitney, D. R. (May 10, 1986). Comments and suggestions concerning the studies "Equivalency certificates--report to the superintendent: Findings and recommendations" and "Performance of GED holders enrolled at the University of Wisconsin's thirteen campuses 1979-1985". (Whitney comments on Wisconsin studies).

Wolf, J. C. (March 1980). Predictive validity of the GED tests for two-year college study South Plains College, Texas. American Council on Education GED Research Brief, 1, 1-2.

Wisconsin GED Graduate Survey

Please take the time to complete this questionnaire. Your answers are totally confidential. No one will know your name.

A. This section asks about changes that might have occurred in your life since you earned your GED. Please check either YES or NO for each question.

Since earning your GED . . .	YES	NO
1. Have you participated in on-the-job training?	☐	☐
2. Have you enrolled in a vocational diploma program?	☐	☐
3. Have you enrolled in a college degree program?	☐	☐
4. Have you enrolled in a non-credit adult education course?	☐	☐
5. Did you get a job promotion?	☐	☐
6. Did you get a better job with a new employer?	☐	☐
7. Are you earning more money?	☐	☐
8. Have you entered the military?	☐	☐
9. Has anyone else in your family enrolled in GED preparation classes or taken the GED?	☐	☐
10. Have any of your friends enrolled in GED preparation classes or taken the GED?	☐	☐

B. The next section lists other changes you may have experienced since earning the GED. Please rate each of the following statements to the extent you agree or disagree with it. Circle "1" for Strongly Disagree, "2" for Disagree, "3" for Agree, and "4" for Strongly Agree. If a statement does not apply to you, circle "NA" for Not Applicable.

1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree	NA. Not Applicable

Because of earning my GED,					
11. I have more job opportunities.	1	2	3	4	NA
12. I have better relationships with friends or co-workers.	1	2	3	4	NA
13. I feel more intelligent.	1	2	3	4	NA
14. I am more able to keep my job.	1	2	3	4	NA
15. I am more assertive.	1	2	3	4	NA
16. I have a greater interest in learning on my own.	1	2	3	4	NA
17. I am happier.	1	2	3	4	NA
18. I am a better problem-solver.	1	2	3	4	NA
19. I am more self-reliant.	1	2	3	4	NA

Continued on next page

1. Strongly Disagree	2. Disagree	3. Agree	4. Strongly Agree	NA. Not Applicable

Because of earning my GED,

20.	I have a more positive attitude toward education.	1	2	3	4	NA
21.	I am more adaptable.	1	2	3	4	NA
22.	I am better able to take of my family's needs.	1	2	3	4	NA
23.	I have higher educational goals.	1	2	3	4	NA
24.	I feel that other people respect me more.	1	2	3	4	NA
25.	I have higher career goals.	1	2	3	4	NA
26.	I am more financially independent.	1	2	3	4	NA
27.	I play a more active role in my church.	1	2	3	4	NA
28.	I set a better example for my children.	1	2	3	4	NA
29.	I have more self-confidence.	1	2	3	4	NA
30.	I am more satisfied with my life.	1	2	3	4	NA
31.	I am more able to prevent people from taking advantage of me.	1	2	3	4	NA
32.	I can communicate better with other people.	1	2	3	4	NA
33.	I feel more successful.	1	2	3	4	NA
34.	I am more involved in school activities, like PTA.	1	2	3	4	NA
35.	I am more able to help my children with their schoolwork.	1	2	3	4	NA
36.	I play a more active role in my community.	1	2	3	4	NA
37.	I have better relationships with my family.	1	2	3	4	NA
38.	I am more able to help other people.	1	2	3	4	NA
39.	I do my job better.	1	2	3	4	NA
40.	I am more in control of my life.	1	2	3	4	NA
41.	I work harder.	1	2	3	4	NA
42.	I am more concerned with political affairs.	1	2	3	4	NA
43.	I feel more powerful.	1	2	3	4	NA
44.	I have achieved the goals I had for taking the GED.	1	2	3	4	NA

45. Did you study at a learning center or take classes to prepare for the GED test?

Yes ☐ No ☐

If you answered "Yes" to Question 45, please answer the following questions in Section C about the learning center program or classes. If you answered "No" to Question 45, please skip Section C and go to Section D on the bottom of the next page.

Continued on next page

C. The next questions ask you about how helpful the learning center or other classes were. Please circle "1" for Not Helpful, "2" for Somewhat Helpful and "3" for Very Helpful.

1. Not Helpful	2. Somewhat Helpful	3. Very Helpful

How helpful were the classes for . . .

46.	improving your reading skills?	1	2	3
47.	improving your math skills?	1	2	3
48.	improving your writing skills?	1	2	3
49.	increasing your knowledge of science?	1	2	3
50.	increasing your knowledge of social studies?	1	2	3
51.	improving your test-taking skills?	1	2	3
52.	increasing your self-confidence?	1	2	3
53.	helping you prepare for further education?	1	2	3
54.	helping you improve job-related skills?	1	2	3

55. About how many weeks did you spend preparing for the GED? (**CHECK ONLY ONE ANSWER**)

☐ 4 weeks or less ☐ 5 - 8 weeks ☐ 9 - 16 weeks ☐ 17 - 24 weeks ☐ More than 24 weeks

56. At any time while you prepared for the GED, did you stop attending classes for two weeks or more and then start again?

☐ No (Go to Question 57)
☐ Yes (Go to Question 56a)

56a. If "Yes," about how many times did you stop? #_____

D. The next section asks some questions about yourself. Please write or check the correct response. Remember that all your answers will be confidential.

57. What is your age? . . . . . Age _____

58. What is your sex? . . . . . ☐ Female ☐ Male

59. Do you have school-aged children living with you at home? ☐ Yes ☐ No

60. What is your racial or ethnic background? (CHECK ONE)

☐ 1. Asian/ American ☐ 2. Black ☐ 3. Hispanic ☐ 4. Native American ☐ 5. White

Please go on to the last page

61. Please indicate your parents' highest level of educational attainment. **(CHECK ONE FOR EACH PARENT)**

	Mother	Father
1. Less than high school diploma	☐	☐
2. High school diploma	☐	☐
3. GED credentials	☐	☐
4. Some years of college	☐	☐
5. College degree	☐	☐
7. Don't know	☐	☐

62. Before you earned the GED, were you **(CHECK ONE) . . .**

☐ 1. Employed full time ☐ 2. Employed part time ☐ 3. Unemployed and looking for work ☐ 4. Unemployed and not looking for work

63. Are you now **(CHECK ONE) . . .**

☐ 1. Employed full time ☐ 2. Employed part time ☐ 3. Unemployed and looking for work ☐ 4. Unemployed and not looking for work

64. Before you passed the GED test, were you receiving public assistance, such as AFDC or food stamps? . . . . . ☐ Yes ☐ No

65. Are you now receiving public assistance? . . . . . ☐ Yes ☐ No

66. Please share any opinions or comments you have regarding the GED tests and the impact that receiving the GED has had on your life.

_____

_____

_____

_____

We are conducting a telephone survey in May to obtain more information about the experiences and opinions of GED graduates. If you would be willing to participate in a 15-minute telephone interview, please write your name and telephone number below. Please indicate the most convenient day of the week and time for us to call you. We will not be able to call everyone, but if you are interviewed, we will pay you ten dollars for your help.

Name: _____ Telephone Number: _____

Most convenient day and time to call: _____

Thank you for completing this survey. Please mail the completed questionnaire in the enclosed postage paid return envelope to:

University of Wisconsin-Extension
Wisconsin Survey Research Laboratory
610 Langdon Street, Room 109
Madison, WI 53703

P2059

APPENDIX C

INTERVIEW GUIDE

Introduction:
Hi, I am _____ from the University of Wisconsin. I am calling as part of a telephone survey of GED graduates in Wisconsin. The results of the survey will be used to improve the GED program in Wisconsin. A few weeks ago, you completed a questionnaire that asked about changes that you've experienced as a result of obtaining the GED. We'd like to thank you for taking the time to answer the questions and return the survey. On the questionnaire, you indicated that you would also be willing to participate in a telephone interview. Are you still willing to be interviewed?

[if no] Well, thank you again for your answers to the mail survey. [end phone conversation]

[if yes] Is this a good time to talk for about 15 minutes?

If NO: When would be a good time for me to call back?
(note day and time for return call)

If YES: Great!
The purpose of this interview is to get more information about your experiences after you received the GED. I want to remind you that your answers will be completely confidential - your name will not be used. Would it be ok for me to tape the interview? Then I can be sure that I have an accurate record of your opinions. Thanks.
(if no, do interview and take notes only)

Guiding Questions

TAKING THE GED TEST
How did you find out about the GED test? Had anyone else you know taken the GED?
Why did you decide to take the test when you did?
Did anything happen in your life that made you decide to take the test at that time? Had your life changed in any way?
Did you have any particular goals that you wanted to achieve as a result of obtaining the GED? If so, what were they? Why did you feel that you needed a GED/high school diploma to achieve these goals?
Did you ever take the GED before the time you took it successfully? If so, when and where?
Did your family/friends know that you were taking the GED? How did they feel about it?
What was the process you went through to take the test?
*Were you aware that the GED test requirements had changed not too long before you took the test? [if yes: did that affect your taking the test in any way? How?]

EMPLOYMENT
before earning GED
Were you working at the time you took the GED test? What job? How long had you been working there?
Did you desire a job change (or employment if not employed)? What

kind? Was a high school degree necessary for that job? Were you actively seeking a new job?
What other jobs have you had? (develop a brief chronology of employment)
<u>after earning GED</u>
Do you have a job now? Same as at the time of the GED?
If different: when did you change jobs? Why? DId getting the GED affect your job change in any way?
Do you desire a job change now? What kind?
What are your long range employment goals? Has getting the GED affected these goals at all? How?

FAMILY LIFE
<u>before earning the GED</u>
Were you married when you took the GED? Who were the adults in your household & their relation to you?
Did your husband/wife/friend have a high school degree?
Do you have any children? How many? How old were they when you took the GED?
Who has primary responsibility for taking care of the children?
How are they doing in school? How do you know?
Did you ever help them with schoolwork?
Did you have any relationship with your children's teachers? What kind? Did you ever visit the school, meet with the teachers?
<u>after earning the GED</u>
Has your household changed at all since you earned the GED? How?
Has anyone else in your family taken the GED test or studied for it?
Has your relationship with your spouse/family/children changed in any way? If so, how?
Do you help your children with schoolwork more or less often?
What kind of interactions have you had with your children's teachers or other school personnel since you earned the GED? Have those interactions changed as a result of earning the GED? How?

EDUCATION/LEARNING
<u>before earning GED</u>
Grade/age when left school
How did you come to leave school? What else was happening in you life at the time?
Did you attend any kind of educational program or school after you left elementary/high school, but before you earned the GED? If so, what kinds?
<u>after earning the GED</u>
HAve you participated in any kind of educational program or classes since you earned the GED? If so, what kind? How did you choose to participate in this program or class?
Did earning the GED affect your participation in any way? How?
How easy/difficult are the classes/program? What kind of feedback have you received about how well you are doing?
Does anything make it difficult to attend classes or to study? If so, what?
Do you have any plans to participate in an educational program or classes in the future? If so, what kind? Why are you interested in

that kind of program? Did earning the GED affect these plans in any way?
Do you have plans to participate at any particular time? Why then?
Have your feelings about education in general changed at all since you earned the GED? If so, how?

COMMUNITY
Before you earned the GED, did you belong to any community groups or religious organizations? If so what groups?
How were you involved in these groups?
Has your involvement changed in any way since you earned the GED? If so, how? Has earning the GED been related to those changes?

VOTING/POLITICAL AWARENESS
Were you registered to vote before you earned the GED? If not, are you now registered?
Is there any reason why you're not registered?
HAve you ever voted? How do you find out about cnadidates?
Do you think voting is important? Why?
Have your feelings about politics or government changed at all since you earned the GED? How and why?

SELF-CONCEPT
Have your beliefs about yourself or your abilities changed since you earned the GED? How? How were these changes related to earning the GED?
Have these changes affected your life in any way? (work, family, education, community) How?

OVERALL CHANGE
Overall, what do you feel are the most important differences, if any, in your life since you earned the GED?
How were those changes related to earning the GED?
Were any of these changes ones that you didn't anticipate when you took the GED test?
Have you been able to achieve the goals you had originally for obtaining the GED?
How did the GED help? Was anything or anyone else also important in helping you achieve those goals?
OR, why didn't the GED help? What else might help you achieve these goals? Do you think you will achieve them in the future? How?
Do you have any new goals as a result of obtaining the GED? If so, what are they?

THANK YOU for taking the time to participate in this interview. We would like to send you a check for ten dollars in return for your help. To do so, I will need to have your mailing address and your social security number (record on cover sheet)

Thanks again for your help!

APPENDIX D

CHARACTERISTICS OF ORIGINAL SAMPLE

Characteristic	Number (Percentage)
Mean Age at test	
Gender [n(%) female]	519 (50.5%)
Race/Ethnicity	
White	794 (77.1%)
Black	64 (6.2%)
Native American	36 (3.5%)
Hispanic	35 (3.4%)
Asian	3 (0.3%)
Not Reported	97 (9.7%)
Last Grade Completed	
8th grade or less	62 (6.1%)
9th grade	157 (15.3%)
10th grade	323 (31.4%)
11th grade	439 (42.7%)
12th grade	37 (3.6%)
Not reported	10 (1.0%)
Mean GED Test Score	277.3 (SD=23.6)
Diploma Awarded	
GED	305 (29.7%)
HSED	723 (70.3%)
Reasons for Testing	

Characteristic	Number (Percentage)
Personal Satisfaction	338 (32.9%)
To further my education	429 (41.7%)
Employment	198 (19.3%)
Military	31 (3.0%)
Other	32 (3.1%)